
COMMENT

COPYRIGHT AND REALITY

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INTRODUCTION

*"Reality has left the physical world and moved into the virtual one."*¹

Reality is a daunting concept. Most people have an intuitive understanding of the stuff of reality, but this gut feeling comfortably remains at the level of the subconscious. We know it's "out there," but it is a neglectful acknowledgement:

Few of us think about 'reality' much It is, perhaps, the conceptual equivalent of unconscious motor functions such as breathing. It is vital to life—without it, we would be unable to distinguish the real from the imaginary, the true from the false, the natural from the artificial. But we do not have to think about it to use it—indeed, as soon as we do start thinking about it, it becomes extremely difficult to continue using it. For this reason, perhaps, some may regard it as a peculiar subject for any sort of analysis: it is a given, a fact of life, and best left hidden behind the curtain of unconsciousness.²

This intuitive human feeling for reality (and the accompanying reluctance to open the can of worms that comes with examining it more than subconsciously) persists throughout copyright law. Indeed, it is rare to find a judicial opinion that explicitly refers to the concept of reality; instead, that thing we intuitively understand to be reality looms anonymously just below the surface of legal reasoning. For example, courts refer obliquely to "actual groups,—visible things,"³ "subject matter,"⁴ and "facts in the world."⁵ The meaning of reality is considered, perhaps, too intuitive or too overwhelming for direct analysis.

The concept of reality, however, has a great deal of influence in copyright law. Copyright law has carved out reality as that thing which is *not* protected, particularly as technologies have emerged which use reality heavily as a medium of expression.⁶ This seems reasonable—reality as we commonly

¹ BENJAMIN WOOLLEY, *VIRTUAL WORLDS: A JOURNEY IN HYPE AND HYPERREALITY* 235 (1992).

² *Id.* at 2-3.

³ *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 249 (1903).

⁴ *Franklin Mint Corp. v. Nat'l Wildlife Art Exch.*, 575 F.2d 62, 65 (3d Cir. 1978).

⁵ *Meshwerks, Inc. v. Toyota Motor Sales U.S.A.*, 528 F.3d 1258, 1264 (10th Cir. 2008).

⁶ See *infra* subsection II.A.3.a (the "subject matter" of photographs is not protected); Section II.B ("facts" and "discoveries" are not protected).

understand it is not authored,⁷ and thus not fixed and not original.⁸ However, because copyright law has grappled with the concept of reality obliquely and anonymously, we are left uncertain about precisely what role the concept holds in copyright law. Can reality ever be authored? Is all of reality part of the commons, or just certain segments of reality? How can using reality as a referent impact the availability of copyright protection for creators? The answers to these questions are not immediately apparent.

It is at this point that the proposition that reality is best left unexamined loses its footing. Our intuitive sense of reality may no longer suffice as a tool of legal analysis because we are on the verge of a “new reality,” as artificial reality technologies make the artificial an ever more real part of our daily lives.⁹ Mark Bolas, an expert on augmented and virtual reality technologies, foresees a future in which the virtual and real intermingle completely.¹⁰ And as early as 1991, the main theme of Britain’s first virtual reality conference was how technology “could manipulate reality to the point of being able to create it.”¹¹ Confronting such new technologies, which are termed variously and nonexhaustively as virtual reality, augmented reality, mixed reality, hybrid reality, and cognitive reality,¹² courts may reasonably analogize to or distinguish from reality itself.¹³ Or perhaps, do the same with other

⁷ See, e.g., F. SAMUEL BRAINARD, *REALITY’S FUGUE: RECONCILING WORLDVIEWS IN PHILOSOPHY, RELIGION, AND SCIENCE* 203 n.1 (2017) (“[R]eal’ historically refers to what exists independently of our minds. Used in this historical sense, the term distinguishes naturally occurring things and properties . . . from creations of our minds . . .”). *But see infra* Section II.B (discussing the importance of perspective to the proposition that reality is not authored).

⁸ Both the fixation and originality requirements of copyright law require an author. A work must be fixed *by an author*, see 17 U.S.C. §101 (2012) (“A work is ‘fixed’ in a tangible medium of expression when . . . *by or under the authority of the author* . . .”) (emphasis added); to be original it must be independently created *by an author*. See *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 346 (1991) (“Original, as the term is used in copyright, means only that the work was *independently created by the author* (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity.” (emphasis added)).

⁹ See generally Mark A. Lemley & Eugene Volokh, *Law, Virtual Reality, and Augmented Reality*, 166 U. PA. L. REV. 1051 (2018) (discussing how augmented reality and virtual reality may challenge legal doctrine).

¹⁰ Nick Wingfield, *At Windows 10 Event, Microsoft Jumps into Augmented Reality with HoloLens Headset*, N.Y. TIMES (Jan. 21, 2015), <https://www.nytimes.com/2015/01/22/technology/microsoft-to-give-away-windows-10-in-move-to-woo-software-developers.html> (quoting Bolas as noting that “[t]he question is when we can mix virtual and real worlds seamlessly, what are we going to want to do? . . . I don’t think anyone has an answer to that” (internal quotations omitted)).

¹¹ WOOLLEY, *supra* note 1, at 5.

¹² See JON PEDDIE, *AUGMENTED REALITY: WHERE WE WILL ALL LIVE* 9 (2017) (listing thirty-seven different labels for immersive reality technologies and noting that immersive reality “is a multidiscipline multi-labeled and massively confusing collection of technologies, applications, and opportunities”). For simplicity, this Comment refers to this bundle of technologies as “new reality.”

¹³ These two options can be seen playing out in scholarship surrounding new realities. Compare STEFAN LARSSON, *CONCEPTIONS IN THE CODE: HOW METAPHORS EXPLAIN LEGAL CHALLENGES IN DIGITAL TIMES* 4 (2017) (writing that the descriptor “virtual reality”

technologies that purport to use reality as a medium of expression.¹⁴ The path that courts will take is not clear, and undoubtedly the particular modifiers used to describe the technology (mixed, augmented, hybrid, etc.) will lead courts in different directions. However, a clear understanding of what copyright law currently understands “reality” to be is a good place to start.

The goal of this Comment is to bring the place of reality in copyright law out of the shadows. Because we are in the early stages of new reality technologies, this Comment’s approach is descriptive and evaluative rather than normative. It aims to reveal how reality has been understood in copyright law, organize these understandings into a coherent conceptual model,¹⁵ and then briefly critique that conceptual model in terms of its potential implications for new reality technologies. It does not seek to propose how reality *should* be defined, or how new reality technologies *should* be treated, as a proper analysis of these issues will depend heavily on the precise nature of the technologies. Currently, these technologies are simply too nascent and varied for discrete analysis.

Because the concept of reality is so heavily obscured within copyright case law, this Comment uses conceptual metaphors as its key archeological tool to expose reality’s content and analytical significance. A metaphor is a cognitive tool that transfers something from a familiar source domain to an unfamiliar target domain.¹⁶ In copyright case law, reality appears implicitly as the target domain, while courts use language from more familiar source domains (for example, subject matter or facts) to discuss it. For instance, the keystone reality-is-the-original conceptual metaphor reveals that reality is relevant to copyright law in its role *as a referent*.¹⁷

suggests that it is spatially and qualitatively distinct from reality), *with* DAVID R. KOEPESELL, *THE ONTOLOGY OF CYBERSPACE: PHILOSOPHY, LAW, AND THE FUTURE OF INTELLECTUAL PROPERTY* 9 (1992) (wondering whether extending intellectual property protection into the virtual world “[w]ould not . . . require at least a strong analogy of virtual reality to actual reality or Real Life (‘RL’)”).

¹⁴ See LARSSON, *supra* note 13, at 6 (“One should bear in mind that technology never simply *is*—it is always interpreted within the context and society that it arises and exists in, and thereby becomes dependent on older technologies and already existing concepts that we adopt to understand the new.”). Photography is the most common and attractive medium for courts to analogize to when facing new highly accurate technologies. See *infra* subsection II.A.3.b (discussing the problematic use of photography generally as a source domain for other highly accurate technologies).

¹⁵ For the value of conceptual maps and models to legal thinking, see STEVEN L. WINTER, *A CLEARING IN THE FOREST: LAW, LIFE, AND MIND* xiii (2001) (“What legal actors need . . . is something like a cognitive map of the cultural models and other social constructs that animate thinking and decisionmaking among lawyers, judges, and laypersons alike.”).

¹⁶ See *infra* Section I.C (introducing conceptual metaphor theory).

¹⁷ See *infra* Section II.A.

Indeed, the nature of the referent has vital analytical significance in copyright law because it is key to deciding both originality and infringement.¹⁸ The originality standard is a constitutional requirement for copyright protection.¹⁹ A work may only be protected if some element of the work is original; protection, however, only extends to those original elements.²⁰ Prior to the Supreme Court's 1991 decision in *Feist Publications, Inc. v. Rural Telephone Services Co.*, courts required only that a work have an author and not be copied.²¹ In *Feist*, the Supreme Court heightened the originality standard by also requiring that a work be minimally creative.²² Post-*Feist*, the originality standard has two prongs: (1) the work must be the independent creation of an author, as opposed to being copied from another work; and (2) the work must possess some minimal degree of creativity.²³ On the other hand, infringement requires actual copying of another author's work. Thus, we must be keenly aware of whether an author's referent contains *other works*.

Because the nature of the referent is central to determining both originality and infringement, it is critical that we understand what constitutes reality and how courts treat the special case where reality is the referent.²⁴ The fundamental message of this Comment is that reality-as-referent is treated *differently*

¹⁸ See *infra* Section II.A. The concept of reality emerges in numerous doctrines of copyright law. For example, reality is relevant to the idea-expression/fact-expression dichotomy and the fair use doctrine. However, this Comment primarily uses judicial analysis of the originality doctrine to construct its ontology of reality because there the concept of reality is most analytically significant.

¹⁹ *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 346 (1991).

²⁰ See *id.* at 348 ("The mere fact that a work is copyrighted does not mean that every element of the work may be protected. Originality remains the *sine qua non* of copyright; accordingly, copyright protection may extend only to those components of a work that are original to the author.")

²¹ See, e.g., *Alfred Bell & Co. Ltd. v. Catalda Fine Arts, Inc.*, 191 F.2d 99, 102-03 (2d Cir. 1951) ("All that is needed to satisfy both the Constitution and the statute is that the 'author' contributed something more than a 'merely trivial' variation, something recognizably 'his own.' Originality in this context 'means little more than a prohibition of actual copying.' No matter how poor artistically the 'author's' addition, it is enough if it be his own.")

²² 499 U.S. at 345 (1991).

²³ *Id.* The Court emphasized that the requirement of *minimal* creativity is, indeed, *minimal*. See *id.* at 345, 363 (emphasizing that the level of creativity required is "extremely low" and "*de minimis*"). The Court also restated that originality does not require uniqueness or novelty. *Id.* The work at issue in *Feist* was a phone book listing names in alphabetical order, a work which may be original in its selection, coordination, and arrangement. *Id.* at 358, 363. However, here the alphabetical method was not found to be sufficiently creative because it was deemed "time-honored," "practically inevitable," and "an age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course." *Id.* at 363-64. These passages suggest that something once considered creative may fall out of protection by becoming commonplace. See *infra* Part IV, discussing the potential for application of a more robust merger doctrine to new reality technologies: if created works become a commonplace part of our reality, public policy may demand that they lose copyright protection.

²⁴ See *infra* subsection II.A.3 (discussing the originality-is-variation conceptual metaphor and the prototype effect, where courts understand inaccurate representations of reality to be more creative than accurate representations).

depending on its content. Segments of reality that have no human creator are truly available referents for subsequent creativity, while segments of reality with *some* other human author are more qualified referents due to concerns about potential infringement. On the other hand, where reality-as-referent is created or composed by the author, the ensuing work is considered to be far more creative than a work that uses unmediated, pre-existing reality as a referent.

Authorship and perspective are also critically important to understanding the role of reality in copyright law. In this Comment's ontology, reality encompasses everything not created by the particular author at hand (whom this Comment terms the "next creator"). In other words, reality includes everything that does not "*owe[] its origin*"²⁵ to the next creator: things that have no human author and things that have a different human author. Understanding reality from the perspective of the next creator²⁶ is essential to reconciling the common view of reality as including both created and non-created things with the Supreme Court's characterization of facts and discoveries—both commonly equated with reality through the reality-is-facts and facts-are-discoveries conceptual metaphors—as non-created. Simply put, reality is not viewpoint neutral.

Reality is also infused with a normative underbelly, as reality is understood to be an essential part of the commons. The commons—defined at a high level of generality—is a reservoir of resources generally accessible by the public for use without restriction. Because creativity is essentially derivative, the commons is a freely accessible, referential source for future creators. We must appreciate the normative underpinnings of reality in order to effectively approach new reality technologies—essentially, simulations—that threaten to make a work *indistinguishable* from its referent. By blurring the lines between reality and representation, these technologies will challenge how we define the difference between reality and the works copyright law seeks to protect. In doing so, these technologies may encroach upon reality's normative home in the commons.

This Comment begins in Part I by outlining a conceptual toolbox for approaching the controversial concept of reality: commonsense ontology,

²⁵ See *Feist*, 499 U.S. at 346 (1991) (defining author as "he to whom anything owes its origin; originator; maker" (quoting *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884))).

²⁶ Indeed, it is the next creator's perspective we care about when analyzing originality. See *Alfred Bell*, 191 F.2d at 102 ("Original' in reference to a copyright work means that the particular work 'owes its origin' to the 'author.'" (quoting *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884))). Where representations of reality are protected, it is because there is an infusion of subjectivity in the representation. Indeed, in copyright law, evidence of a dash of human subjectivity may suffice to make a work original. See, e.g., *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 250 (1903) ("The copy is the personal reaction of an individual upon nature. Personality always contains something unique. It expresses its singularity even in handwriting, and a very modest grade of art has in it something irreducible, which is one man's alone.").

categorization, and conceptual metaphor theory. Part II explores the two predominant reality metaphors in copyright law: reality-is-the-original and reality-is-facts. It also explores several ancillary metaphors: reality-is-commons, reality-is-subject-matter, originality-is-variation, and facts-are-discoveries. Using these conceptual metaphors, Part II pieces together an ontology of reality from the perspective of the next creator. Part III pulls together the interrelated conceptual metaphors to summarize and illustrate this conceptual model of reality. And finally, Part IV points toward some of the implications of this conceptual model for new reality technologies.

I. CONCEPTUAL APPROACH

There is, of course, no single understanding of reality or conceptual approach to describing it.²⁷ The task of forming an ontology of reality depends heavily on one's perspective and purpose in attempting the mammoth definitional task. This Comment inquires into the ontology of reality for copyright law only. Its objective is not to normatively assess what the ontology of reality *ought* to be in copyright law, but to sketch the outlines of the ontology of reality as it *is* and provide some broad critiques.

Thus, the conceptual tools this Comment employs should allow us to: (1) confine our analysis to the place of reality in copyright law without becoming entangled in larger issues of metaphysical truth; (2) burrow underneath the oblique language in judicial opinions and uncover how the concept of reality is understood and operationalized; and (3) develop a conceptual model that may be used to effectively critique the current ontology of reality in copyright case law. With these three purposes in mind, this Comment employs a combination of commonsense ontology, radial categorization, and conceptual metaphor theory. These conceptual tools have been used by legal scholars to describe and analyze the ways in which courts have grappled with technological change in various areas of intellectual property law, and thus they are particularly appropriate for our analysis of reality in light of new reality technologies. This Section briefly discusses each conceptual approach in turn.

A. Commonsense Ontology

In his book tackling the issue of intellectual property protection in "cyberspace," David R. Koepsell argued that "commonsense ontology" is the best way to evaluate legal concepts in areas where the issue of *realness* is

²⁷ See WOOLLEY, *supra* note 1, at 4 ("There has never been a totally secure view of reality, certainly not in the industrial era of history.").

implicated.²⁸ According to Koepsell, we can engage in commonsense ontology without being troubled by the ultimate question of metaphysics (i.e. the study of the meaning of reality *qua* reality), noting that

a commonsense ontology can be developed without regard to the questions . . . which inquire into the ultimate reality of the objects of inquiry. An acceptance of the use of common terms which refer to objects commonly understood, and the relations which may exist between those terms and our experiences, is all we need in order to categorize the world. Developing a commonsense ontology requires an admission that we cannot satisfactorily answer the ultimate metaphysical questions regarding what may be real and what may not be real. Rather, it requires only an acceptance of the facts of common experience, without regard to their deeper reality.²⁹

Metaphysics implicates questions of the *realness* or *truth* of objects: *how do we know that the objects we perceive are actually real?* For the practical, evidentiary purposes of the law, however, we are not concerned with such questions. At a base level of reliability (defined extensively by evidence law), we accept that what we perceive is sufficiently real or true for the purposes of the law. And although the ultimate nature of reality is deeply controversial, we “may come to agreements regarding relations between perceived things without agreement as to the nature or reality of the things themselves.”³⁰ Indeed, the legal system requires it.

Thus, developing an ontology of reality in copyright law—a mapping of the concepts and categories of reality using the tools of experience, perception, and language—provides common ground despite the lack of consensus on the ultimate nature of reality. The question becomes: *whether our perceptions are ultimately real or not, how does copyright law make sense of what we perceive?* Thus, as a baseline, this Comment will accept the hotly debated propositions that: (1) reality does have an objective existence; (2) reality can be perceived; and (3) reality can be empirically studied. These are metaphysical rather than ontological issues.

The core practice of commonsense ontology is not reasoning from *a priori* first principles, but observing the ways in which language is used to order and categorize objects.³¹ The addition of “commonsense” denotes that such an

28 KOEPSSELL, *supra* note 13, at 22-32. While this subsection focuses on Koepsell's conceptual methods, the thrust of Koepsell's substantive argument is that the current ontology of copyright law fails to treat all mediums of expression equally. *Id.* at 13-17. In his view, this is an ontological flaw that must be corrected in order for copyright law to coherently deal with software. *Id.*

29 *Id.* at 24-25.

30 *Id.* at 26.

31 *Id.* at 26-27 (noting that “[t]he language we use is loaded with terms which denote an ordering of objects of experience”).

ontology *should* be practical and logically consistent.³² Koepsell summarizes the process of a commonsense ontological study as follows:

- I. *archeology*: Choose a legal object and unravel its existing ontology
- II. *ontology*: Determine whether the existing legal ontology of that object abides by principles of formal ontology and logic.
- III. *evaluation*: Determine, based on II, above, whether the existing legal ontology is correct.
- IV. *application*: If the law does not embody a correct ontology, determine what practical problems, injustices, or inefficiencies follow as a consequence of the incorrect ontology.
- V. *adjustment*: Determine how the law could be adjusted to reflect a correct ontology.³³

This Comment focuses on the first step, of Koepsell's process, archaeology, with brief detours into ontology, evaluation, and application. Though adjustment is a critical step, new reality technologies are still too nascent and indefinite to provide appropriate guidance regarding how the law could be best adjusted to incorporate them logically and consistently.

B. Categorization

An essential feature of an ontological study is observing and evaluating the way language is used to categorize and order objects.³⁴ Indeed, our legal system is characterized by classification and categorization.³⁵ In copyright law particularly, the classifications are manifold and often take the form of binaries: protectable versus unprotectable; original versus unoriginal; idea/fact versus expression. The list goes on.

In his landmark study of conceptual processes in the law, Steven L. Winter argues that categorization should be understood in terms of conceptual theory, which sees the human intellect as “not principally representational, propositional, or computational, but rather . . . imaginative,

³² *Id.* at 30-31. Koepsell compares this to “naïve ontology,” which does not account for logical consistency or practical applicability. *Id.* at 31. This Comment, wherever possible, seeks to reconcile the judicial treatment of various reality metaphors into a coherent ontology. *See infra* Section II.B (reconciling the common view of reality as including everything that is “common to all”—both created and noncreated—with the Supreme Court’s characterization of discoveries (and by extension, reality) as not authored).

³³ *Id.* at 40-41.

³⁴ *Id.* at 27 (“The language we use is loaded with terms which denote an ordering of objects of experience.”); WINTER, *supra* note 15, at 70 (“Categorization is the very process of reasoning itself.”).

³⁵ KOEPSSELL, *supra* note 13, at 29 (“The U.S. legal system involves classification of objects.”).

associative, and analogical.”³⁶ The traditional view of categorization is that inclusion in categories is marked by if-then necessary and sufficient conditions; Winter persuasively argues that this is inconsistent with studies of human cognition.³⁷ In his view, categories in the law are instead imaginative, dynamic, flexible, and normatively infused.³⁸ Most importantly, while legal categories can be understood in a “regularly, orderly, and systematic fashion,” they are not always internally consistent.³⁹

Winter introduces the concept of a “radial category,” which “consists of a central model or case with various extensions that, though related to the central case in some fashion, nevertheless cannot be generated by rule.”⁴⁰ Winters proffers an example by considering “hand” as a radial category.⁴¹ Potential category members include the expressions: hour hand, the upper hand, all hands on deck, a hand of cards, lend a hand, give a hand, and hand that to me.⁴² Although the category members cannot be generated by an if-then rule, all are related to the central case (“hand”) by language and experience.⁴³ Thus, the category is not arbitrary.⁴⁴

Using such radial categories is particularly helpful in the protectability doctrines of copyright law because the category boundaries are often defined by experience in the form of case law rather than positive if-then rules, classically in the form of statutes, although statutes themselves are rarely this clear. For example, the only codification of the idea/expression dichotomy—which excludes copyright protection for mere ideas—exists in section 102(b) of the Copyright Act, which merely lists a collection of things that are not protectable, including “any idea, procedure, process, system, method of operation, concept, principle, or discovery”⁴⁵ The Copyright Act does not define any item on the list. Indeed, we are told in the legislative history that the purpose of the section 102(b) list of unprotectable things is to restate “that the basic dichotomy between

³⁶ WINTER, *supra* note 15, at 5.

³⁷ *Id.* at 69 (“On the standard view, categorization is nothing more than classification according to common properties. Yet, many of our most elementary and familiar categories defy that logic.”).

³⁸ *Id.* at 69.

³⁹ *Id.* at 6.

⁴⁰ *Id.* at 71. Other characteristics of radial categories include chaining and the prototype effect. Where there is chaining within a category, some of the extensions are incorporated because of their relation to an existing group member rather than to the central case. *Id.* at 75. The prototype effect describes a category in which some category members are better examples of the central case than others. *Id.* at 74-75.

⁴¹ *Id.* at 73.

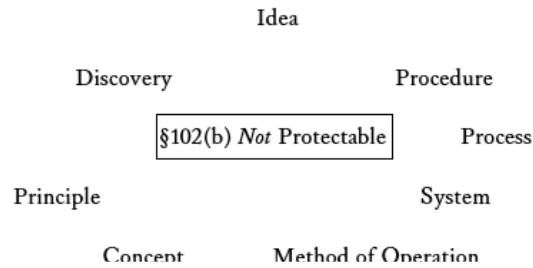
⁴² *Id.*

⁴³ *Id.* at 74.

⁴⁴ *Id.*

⁴⁵ 17 U.S.C. § 102(b) (2012).

expression and idea [established in case law] remains unchanged.”⁴⁶ Figure 1 shows section 102(b) as a radial category.



This Comment employs radial categories as helpful tools in mapping the relations between reality and the many classifications of copyright law. Subsection II.A.3.a sketches the radial category of “creativity” in case law on photography and uses the “prototype effect”⁴⁷ to explain why inaccurate photographs are considered better examples of creativity than accurate photographs. Section II.A revisits section 102(b) as a radial category in the context of analyzing whether reality is considered a category member, and if so, how it relates to the other category members of facts and discoveries.

C. Conceptual Metaphor Theory

As a cognitive tool, a metaphor transfers something from a source domain to a target domain containing new, unfamiliar phenomena. Put simply, it is a knowledge transfer across domains.⁴⁸ That knowledge transfer helps us to better understand the unfamiliar domain:

A memorable metaphor has the power to bring two separate domains into cognitive and emotional relation by using language directly appropriate to the one as a lens for seeing the other; the implications, suggestions, and

⁴⁶ H.R. REP. NO. 94-1476, at 57 (1976).

⁴⁷ This effect is characteristic of radial categories and occurs when some category members are considered *better examples* of the central case than other category members. This would not occur if category membership was produced by if-then logic because presumably all category members would obtain equal status by having met the necessary or sufficient condition. See WINTER, *supra* note 15, at 85.

⁴⁸ See *id.* at 13 (noting that metaphor “refers to a tightly structured set of conceptual mappings in which a target domain is understood in terms of a source domain of more readily comprehended embodied or social experience”).

supporting values entwined with the literal use of the metaphorical expression enable us to see a new subject matter in a new way.⁴⁹

Indeed, the analogy (simply a form of metaphor) is a favorite tool of the lawyer and jurist. The conceptual structure of a metaphor is conventionally depicted using the phrasing “target-domain-is-source-domain,” which this Comment will adopt.⁵⁰

Metaphors are often deployed when the law confronts technological change.⁵¹ Particularly in the areas of telecommunications and internet law, scholars have effectively used cognitive metaphor theory to analyze judicial reasoning.⁵² While conceptual metaphor theory has been applied very successfully in these areas, it has not yet been applied to the concept of reality in copyright law. Because the concept of reality often appears anonymously, conceptual metaphors are particularly valuable tools for uncovering how courts are implicitly thinking about reality. This Comment uses conceptual metaphor theory to reveal the ways in which courts evoke the concept of

49 MAX BLACK, *MODELS AND METAPHORS: STUDIES IN LANGUAGE AND PHILOSOPHY* 236-237 (1962).

50 WINTER, *supra* note 15, at 13. Note that the linguistic representation of a metaphor can take many forms. This Comment uses the metaphor specifically to refer to the conceptual move of transferring a concept from a source domain to a target domain, hence the choice of phrasing.

51 See LARSSON, *supra* note 13, at 8 (“By pointing out *how* we understand abstract phenomena metaphorically, particularly with regards to how we express patterns or recurring structures, we may unravel some of the legal challenges that we have to tangle with as a result of rapid technology-related change.”).

52 For studies of judicial reasoning in times of technological change that implement conceptual metaphor theory, see *id.* at 138-48 (evaluating conceptual metaphors in internet law with a particular focus on file-sharing and piracy); JESSICA LITMAN, *DIGITAL COPYRIGHT* 78, 133 (2001) (discussing several metaphors in copyright law, including the quid-pro-quo and housebreaking metaphor); Shyamkrishna Balganesh, *Common Law Property Metaphors on the Internet: The Real Problem with the Doctrine of Cybertrespass*, 12 MICH. TELECOMM. & TECH. L.R. 265 (2006) (analyzing common law property metaphors in the development of the doctrine of cybertrespass); Ryan Calo, *Robots as Legal Metaphors*, 30 HARV. J. L. & TECH. 209 (2016) (examining the metaphor of the robot in the judicial imagination); Glenn Cohen & Jonathan H. Blavin, *Gore, Gibson, and Goldsmith: The Evolution of Internet Metaphors in Law and Commentary*, 16 HARV. J.L. & TECH. 265, 268 (2002) (exploring the use of metaphors of the internet, focusing on three metaphors in particular: the information superhighway, cyberspace, and the internet as “real” space); Michael Froomkin, *The Metaphor is the Key: Cryptography, the Clipper Chip, and the Constitution*, 142 U. PA. L. REV. 709 (1995) (using conceptual metaphor theory to analyze the constitutionality of encryption regulations); Kristen Jakobsen Osenga, *The Internet Is Not a Super Highway: Using Metaphors to Communicate Information and Communications Policy*, 3 J. INFO. POL’Y 30 (2013) (discussing how metaphors influence our information policy preferences and advocating for the metaphor of the internet as an ecosystem); Robert Reilly, *Mapping Legal Metaphors in Cyberspace: Evolving the Underlying Paradigm*, 16 J. MARSHALL J. COMPUTER & INFO. L. 579, 580 (1998) (arguing that the web should be viewed as an organic entity); Alfred C. Yen, *Western Frontier or Feudal Society? Metaphors and Perceptions of Cyberspace*, 17 BERKELEY TECH. L.J. 1207 (2002) (arguing that the internet should be analyzed using a metaphor of feudal society).

reality without explicit reference to it and analyzes what these linguistic choices reveal about the conceptual role of reality in copyright law.

II. REALITY METAPHORS

Since the role of reality in copyright law lies just below the surface, we must explore how courts indirectly describe or confront reality. This Section will use several key metaphors to construct a conceptual model of reality in copyright law.

First, the metaphors of reality-is-original, reality-is-subject-matter, reality-is-commons, and representation-is-copy reveal that copyright law is centrally concerned with reality as a referent for an author's creative work. In other words, reality is relevant to copyright law as *that thing which is copied*. The case of *Bleistein v. Donaldson Lithographing Co.* teaches that whether reality is not created by any author (what this Comment will term "public domain reality") or created by *some* author (what this Comment will term "externally created reality") is analytically significant to the issues of both originality and infringement.⁵³ However, the nature of the work that uses reality as a referent—i.e., whether it is a simple representation or a simulation—has blurred this distinction in the area of highly accurate, reality-reproducing technologies.

Second, the reality-is-facts-in-the-world metaphor tells us that reality is understood to be actual and objective. More importantly, however, it highlights the central importance of perspective when defining reality for purposes of copyright law. Put simply, reality must be defined from the perspective of the *next creator*. Reality thus includes those things that have no human author (public domain reality) and things are not authored by the next creator, but have some other human author (externally created reality). However, it *does not* include expression authored by the next creator (what this Comment terms "new expression").

A. Reality-is-Original; Representation-is-Copy

Understanding the divergent ways in which copyright law understands reality and representations of reality is an essential first step in sketching our ontology. Indeed, the very first line drawn in our conceptual model is between reality *qua* reality and representations of reality. This essential distinction is best understood by analyzing the reality-is-original and representation-is-copy metaphors.

⁵³ See *infra* Section II.A.

In *Bleistein v. Donaldson Lithographing Co.*, the Supreme Court considered the copyrightability of an illustration of circus performers drawn from life.⁵⁴ Justice Holmes, writing for the Court, concluded that the illustrations were copyrightable.⁵⁵ Unsurprisingly, Holmes never explicitly referred to reality in the opinion. Instead, he conjured the idea of reality by referring to actual groups, visible things, and later, nature.⁵⁶ Categorically rejecting any legal relevance for the fact that the images might have been drawn from life,⁵⁷ Holmes declared: “It is *obvious* also that the plaintiff’s case is not affected by the fact . . . that the pictures represent actual groups—visible things *Others are free to copy the original. They are not free to copy the copy.*”⁵⁸ By the term “the original,” it is a fair inference that Holmes was referring of that collection of things that we commonly understand to be reality, i.e., actual, visible things.⁵⁹

Three important assumptions about the status of reality in copyright law are packed into Holmes’ statement: (1) reality is actual and visible, (2) reality is “the original,” and (3) a representation of reality is a “copy.” The idea of reality as actual and visible is deep-rooted in our assumptions about the world around us, but nonetheless controversial even in the realm of copyright law. Section II.B dwells further on the analytical significance of understanding reality as actual and visible by exploring the reality-is-facts metaphor.

However, the distinction between reality and a representation of reality underlying the second and third assumptions is a fundamental one. In *Bleistein*, Holmes made this distinction implicitly by using the terms “original” and “copy.” Reality is the original, i.e., the thing that is copied. The representation is the copy, defined by Holmes as “the personal reaction of an individual upon nature.”⁶⁰ For Holmes, the validity of the metaphor was

⁵⁴ 188 U.S. 239, 242 (1903).

⁵⁵ *Id.* at 252.

⁵⁶ *Id.* at 249 (“[T]he pictures represent actual groups—visible things.”).

⁵⁷ *Id.* (“[The illustrations] seem from the testimony to have been composed from hints or description, not from sight of a performance. But even if they had been drawn from [] life, that fact would not deprive them of protection.”).

⁵⁸ *Id.* at 249–50 (emphasis added).

⁵⁹ See, e.g., BRAINARD, *supra* note 7, at 203, n.1 (2017) (“‘[R]eal’ historically refers to what exists independently of our minds. Used in this historical sense, the term distinguishes naturally occurring things and properties . . . from creations of our minds”). That Holmes had the concept of reality in mind here is also bolstered by the three cases he cited in support of his reasoning, which each involve representations of things that we commonly think of as components of reality: geographical features and locations. *Kelly v. Morris* (1866) 1 LR Eq. 697 (Eng.); *Morris v. Wright* (1870) 5 Ch. App. 279 (Eng.); *Blunt v. Patten*, 3 F. Cas. 763 (S.D.N.Y. 1828) (No. 1580). For further discussion of these cases, see *infra* subsection II.A.1.

⁶⁰ *Bleistein*, 188 U.S. at 250; see also 17 U.S.C. § 101 (defining “copies” as “material objects . . . in which a work is fixed . . . and from which the work can be perceived, reproduced, or otherwise communicated”); *infra* subsection II.B.2 (complicating the copy).

obvious and needed no further analysis: reality-is-original, while representation-is-copy.

While Holmes defined what he meant by a copy he did not explicitly address the meaning of “the original.”⁶¹ The term “the original,” as we commonly use it, can include both created and non-created things. The Oxford English Dictionary, for example, defines the term as “[d]esignating the thing, as a document, text, picture, etc., from which another is copied or reproduced.”⁶² On this view, the original is *the referent*.

By his sweeping statement that individuals are “free to copy the original,” it is clear that Holmes was using “the original” in *Bleistein* to refer *only* to non-created things.⁶³ If he considered “the original” to include created things—things that might be protected by copyright law—his statement would be a radical invitation for infringement. This Comment refers to that realm of things that Holmes considered to be the relevant referent—those aspects of reality that are not created by any human author—as “public domain reality.”

Importantly, Holmes used terms that are familiar and fundamental in copyright law to denote the distinction between reality and representation. In order to understand the target domain of “pictures represent[ing] actual groups,—visible things,”⁶⁴ Holmes referred to the more familiar source domain of copyright doctrine regarding copying. Indeed, each of the three cases to which Holmes cited to support his proposition—*Blunt v. Patten*, *Morris v. Wright*, and *Kelly v. Morris*—pivots on copyright doctrine regarding copied works. The first subsection begins by examining the target domain of public domain reality through exploring Holmes’ source domain of case law on copied works. These cases expose the analytical significance of distinguishing between the original and the copy for the doctrines of both originality and infringement. And through an underlying reality-is-commons metaphor, these cases reveal a normative understanding of public domain reality as a freely accessible, shared referent for creators.

The second subsection refines and complicates the meaning of the “copy” through introducing the concept of simulation and the potentially problematic blurring between the original and the copy that may occur in such highly accurate representations of reality. And the final subsection discusses the reality-is-subject-matter and originality-is-variation conceptual metaphors in case studies of highly accurate, reality reproducing technologies such as photography, 3-D modeling, and scanning. These cases reveal that the

⁶¹ *Bleistein*, 188 U.S. at 250.

⁶² *Original*, OXFORD ENGLISH DICTIONARY (3d ed. 2004).

⁶³ *Bleistein*, 188 U.S. at 249.

⁶⁴ *Id.* at 249.

distinction between noncreated and created reality as referent has vital analytical significance for copyright law. In addition, these case studies highlight how this critical distinction has become lost in the muddle of case law on derivative works and the judicial preference for inaccuracy and variation in representations of reality. Through these intertwining metaphors, we begin to build our ontology of reality.

1. Reality-is-Commons

Although the case law of copying may seem a curious source domain for reality, it exposes the core analytical significance of the nature of the referent in copyright law. The issue at hand in each case cited by Holmes in *Bleistein* in support of his reality-is-original and representation-is-copy metaphors was whether the defendant copied reality or copied the plaintiff's preexisting representation of reality. *Blunt v. Patten* involved the alleged copying of a chart of the eastern coast of the United States,⁶⁵ while two English cases, *Kelly v. Morris* and *Morris v. Wright*, involved alleged copying of directories of London homes and businesses.⁶⁶ The core proposition underlying each case was that there *cannot* be impermissible copying of public domain reality, but there *can* be impermissible copying of a representation of public domain reality. In *Blunt v. Patten*, for example, the Southern District of New York stressed that public domain reality is a freely accessible referent for creators:

[T]he *natural objects* from which the charts are made are *open to the examination of all*, and any one has a right to survey and make a chart . . . A right, in such a subject, is violated only when another copies from the chart of him who has secured the copyright . . .⁶⁷

In other words, a creator may freely use public domain reality as a referent without risking infringement. The court in *Morris v. Wright* even more forcefully stressed that infringement requires copying *of a work*: “[T]he true definition of ‘copyright’ is the sole right of multiplying copies. That, of course, means that you must not copy with or without colourable alterations. That is a general definition of copyright.”⁶⁸

This source domain of copying lays bare the analytical significance of Holmes classifying the relevant referent as public domain reality.⁶⁹ There is

⁶⁵ 3 F. Cas. 763, 763 (S.D.N.Y. 1828) (No. 1580).

⁶⁶ *Kelly v. Morris* (1866) 1 LR Eq. 696 at 696-97; *Morris v. Wright* (1870) 5 Ch App. 279 at 279-80.

⁶⁷ 3 F. Cas. at 764-65 (emphasis added).

⁶⁸ 5 Ch App. at 284.

⁶⁹ In the directory cases, this is arguably copying of facts. For further discussion of the reality-is-fact metaphor, see *infra* Section II.B.

independent creation and therefore also likely originality⁷⁰ where the original (the referent, i.e., the thing that is copied) is public domain reality. There is illicit copying, and thus no originality and possibly infringement,⁷¹ where the original is already a copy of public domain reality.⁷² In other words, precisely how we classify the referent has immense consequences for determining whether a work is protected by copyright law or infringing another author's copyright rights.

Why did Holmes identify public-domain-reality-as-referent as a special case where copying is entirely permissible? The answer lies in the singular nature of public domain reality: its nonexclusivity and accessibility to subsequent creators to use as a referent for independent creation. The geographic features of the east coast of the United States and the locations of London homes and business are “common objects of information”⁷³ and “open to the examination of all.”⁷⁴ Holmes's focus on the parts of reality that are not created by anyone, and thus plainly part of the public domain, reveals a normative underbelly to the judicial view of reality. It is natural to view reality as accessible, free, and open to all. In this view, reality-is-commons.

The concept of the commons is understood differently by different scholars—for example, as the antithesis of private property, property from which users cannot be excluded, or property with no restrictions on its use.⁷⁵ Broadly, however, the commons functions as “the law's primary safeguard of the raw material that makes authorship possible.”⁷⁶

⁷⁰ The originality doctrine of copyright law requires that: (1) the work must be the independent creation of an author, as opposed to being copied from other works; and (2) the work must possess some minimal degree of creativity. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 346 (1991).

⁷¹ Infringement in copyright law requires proof of actual copying. *Id.* at 361.

⁷² See *Alfred Bell & Co. v. Catalda Fine Arts, Inc.*, 191 F.2d 99, 102-03 (2d Cir. 1951) (“All that is needed to satisfy both the Constitution and the statute is that the ‘author’ contributed something more than a ‘merely trivial’ variation, something recognizably ‘his own.’ Originality in this context ‘means little more than a prohibition of actual copying.’” (footnote omitted)). The baseline originality requirement was predominant at the time of *Bleistein*, but was later heightened in *Feist*.

⁷³ *Kelly v. Morris* (1866) 1 LR Eq. 696 at 701.

⁷⁴ *Blunt v. Patten*, 3 F. Cas. 763, 764 (S.D.N.Y. 1828) (No. 1580).

⁷⁵ See, e.g., Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621, 672-73 (1998) (surveying the meaning of the “commons” in property law); A. Samuel Oddi, *The Tragicomedy of the Public Domain in Intellectual Property Law*, 25 HASTINGS COMM. & ENT. L.J. 1, 8 n.13 (2002) (“The literature has not produced a consistent definition of ‘public domain’ or ‘intellectual commons’ (sometime[s] ‘intangible commons’) or their interrelationship, if any.”).

⁷⁶ Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 967 (1990).

Indeed, the intersection of the sweat-of-the-brow rationale for copyright protection (firmly rejected in the United States after the *Feist*⁷⁷ case in 1991) and the reality-is-original metaphor even more firmly underpins this underlying reality-is-commons metaphor. The characteristics of public domain reality that spring from the reality-is-commons metaphor are particularly important in a labor-based (“sweat-of-the-brow”) justification for copyright law. The sweat-of-the-brow justification sees copyright as rewarding the labor of individuals who independently create works while punishing the laziness of copiers. In all three cases cited by Holmes for his proposition that artists are free to copy public domain reality, the courts noted that copying is particularly egregious when public domain reality is *such* an accessible and freely available source for independent creation. As noted by the court in *Kelly*:

[W]hen there are certain common objects of information which must, if described correctly, be described in the same words, a subsequent compiler is bound to set about doing for himself that which the first compiler has done. In the case of a road-book, he must count the milestones for himself. In the case of a map of a newly-discovered island . . . he must go through the whole process of triangulation just as if he had never seen any former map, and, generally, he is not entitled to take one word of the information previously published without independently working out the matter for himself, so as to arrive at the same result from the same common sources of information, and the only use that he can legitimately make of a previous publication is to verify his own calculations and results when obtained. So in the present case the Defendant could not take a single line of the Plaintiff’s Directory for the purpose of saving himself labour and trouble in getting his information.⁷⁸

While sweat-of-the-brow is no longer valid in the United States, the idea of reality as an especially accessible part of the commons—as a nonexclusive resource for subsequent creators to use for their own independent creation—lies at the heart of the ontology of reality in copyright law. This Comment revisits the reality-is-commons metaphor and its implications for new reality technologies in Part IV.

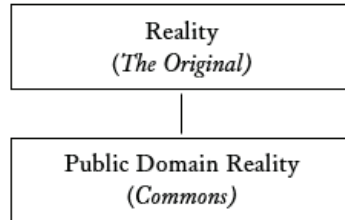
Thus, our conceptual model begins with an acknowledgement that reality is not the same as a representation of reality. At least part of our concept of

⁷⁷ That an author labored to create her work is irrelevant to determining creativity; evidence of creativity must come from the work itself. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 364 (1991).

⁷⁸ 1 LR Eq. at 701-02; *see also Blunt*, 3 F. Cas. at 763-65 (referring to “fair fruit of original labor” and framing the issue with a focus on labor: the plaintiff “charges the defendant with having availed himself of the information thus acquired by the labor, and at the expense of the complainant in the publication of his chart”).

reality includes things not created by any human author, which this Comment refers to as public domain reality.⁷⁹ Individuals may use public domain reality freely as a referent to create copies, and these copies may qualify for copyright protection. See Figure 2 for these initial outlines of our conceptual model.

Figure 2: Reality Includes Things That Were Not Created by Any Human Author (Public Domain Reality)



The reality-is-original and representation-is-copy conceptual metaphors are analytically significant because they reveal that the nature of the original (i.e., the referent for an author's creative work) affects whether there is both originality and infringement. Copying can be both permissible and illicit, but infringement requires illicit copying—the copying of a protectable *work*. On the other hand, originality requires independent creation by an author (i.e. the absence of illicit copying). Public domain reality does not contain any protectable works because it consists entirely of things with no human author. Thus, where the original is public domain reality, any copy will likely be deemed a noninfringing, independent creation.

Our ontology of reality, however, requires further exploration. This Comment has referred to copies as including only representations, but that notion requires complicating. Copies may include far more than simple representations; of particular interest in the context of new reality technologies is the concept of copy-as-simulation, which will be discussed further in subsection II.A.2. Where the copy is a simulation, we may struggle to distinguish between the original and the copy. As a result, we might lose sight of whether the relevant referent consists of noncreated or created things.

This failure to appreciate the analytical significance of whether the referent is created or noncreated has already appeared in judicial analyses of highly accurate technologies post-*Bleistein*. Courts disfavor highly accurate copies without regard to whether the copies are of public domain reality or of other

⁷⁹ For discussion of whether reality also includes created things, see *infra* subsection II.A.3 and Section II.B.

works. Subsection II.A.3 explores this conceptual blurring between the original and the copy through case studies of photography and 3-D modeling.

2. Complicating the Copy

Mediums that mimic reality with a high degree of accuracy have opened the door to novel types of copies beyond traditional representations. Thus, it would be wise to expand our conception of the copy to include simulations as well as representations. This Section is not a reflection of current law regarding copyright protection of simulations of reality because courts simply have not thoroughly tackled the issue yet. Rather, it proposes analyzing copies-as-simulations as a useful way to think about how the reality-is-original and representation-is-copy conceptual metaphors may apply in the case of new reality technologies. While the distinction between the original and the copy has great analytical significance in copyright law, where the copy is a simulation (and as the next subsection analyzes, even where the copy is merely highly accurate), that distinction becomes troublingly muddled.

In *Bleistein*, Holmes defined a copy of reality as “the personal reaction of an individual upon nature.”⁸⁰ Under this view, the copy is infused with subjectivity as the author imprints the referent with an element of her personality. This definition of a copy, however, was formulated in the particular context of a copy of public domain reality (which includes, among other things, “nature”). More broadly, the Copyright Act defines a copy as a material object that is fixed in a tangible medium.⁸¹ To be protected by copyright law, a copy must also be an expression, i.e. it must be produced by a human author.⁸² Notably, a copy need not be *copied* in the sense of having a referent (although, practically, most works do have *some* referent).⁸³

Now for the complicating. Where reality is the original, the precise type of copy may change the relationship between that copy and the original. Because the purpose of this Comment is to relate the ontology of reality generally to new reality technologies, I focus here on a particular type of copy: the simulation.⁸⁴ At its heart, a simulation is simply a type of copy that seeks

⁸⁰ *Bleistein*, 188 U.S. at 250.

⁸¹ 17 U.S.C. § 101 (2012) (stating that a work is fixed when it may be “perceived, reproduced, or otherwise communicated for a period of more than a transitory duration.”).

⁸² KOEPEL, *supra* note 13, at 114 (“All expressions share one property: they originate from purposeful human action.”).

⁸³ See *infra* Part IV (discussing the essentially derivative nature of creativity).

⁸⁴ The word simulation is derived from the Latin *simulare*, which means “to copy.” Andrew Wernick, *Simulation*, in THE BAUDRILLARD DICTIONARY 199 (Richard G. Smith ed., 2010).

to imitate its original very closely.⁸⁵ To discuss the concept of the simulation and its place in our ontology of reality, this Comment borrows from the conceptual model created by media theorist Jean Baudrillard.⁸⁶ Baudrillard extensively theorized the nature of the simulation and argued that we should understand simulation in three orders: (1) the representation; (2) the simulation; and (3) hyperreality. At each stage, the copy becomes increasingly indistinguishable from its original.

In the first order of simulation, the representation is clearly based on reality and there is no confusion between the original and the copy.⁸⁷ The original is the unmistakable referent for the simulation. A first order simulation is the type of copy that we are most familiar with and how we would currently classify most of the works protected by copyright law.

In the second order of simulation, the copy is still based on reality, but the borders between original and copy become blurred.⁸⁸ As an imaginative example, Baudrillard described a map that has a one-to-one relationship with the territory it depicts such that it covers the territory exactly:

⁸⁵ See *Simulation*, OXFORD ENGLISH DICTIONARY (3d ed. 2004)(defining simulation as a “false assumption or display, a surface resemblance or imitation, of something.”).

⁸⁶ Baudrillard used the concept of the simulation primarily for the purposes of sociocultural criticism, with a particular focus on the role of media in creating power structures in society. For Baudrillard, the simulation was a way for understanding historical and cultural devices of social control. William Pawlett, *Simulcra & Simulcrum*, in *THE BAUDRILLARD DICTIONARY* 197 (Richard G. Smith ed., 2010). Primarily, Baudrillard understood simulation as a social process. See generally, CHARLES LEVIN, *JEAN BAUDRILLARD: A STUDY IN CULTURAL METAPHYSICS* 184 (1996). Baudrillard’s writing also introduces concepts of metaphysical truth and realness—both issues, as noted in Part I, that we are not concerned with here. Baudrillard, for example, argued that the idea of the real was a cultural construction in post-modern times. Mike Game, *Hyper-Reality*, in *THE BAUDRILLARD DICTIONARY* 95 (Richard G. Smith ed., 2010). For Baudrillard, the metaphysical idea of the “real” had disappeared completely because the virtual and real had become inextricably mixed. Andrew Warnick, *Real*, in *THE BAUDRILLARD DICTIONARY* 178-79 (Richard G. Smith ed., 2010). However, this Comment cites Baudrillard only for his bare conceptual model of the three orders of simulation, not for his broader sociocultural theories. This conceptual model provides a helpful structure for thinking about how the current ontology of reality in copyright law might approach new reality technologies, which are at their cores, simulations. See *infra* Part III (providing an illustrative example of this Comment’s conceptual model using Baudrillard’s three orders of simulation). While Baudrillard’s broader theories are undoubtedly controversial, this Comment does not need to become entangled in the broader controversy in order to find his conceptual model of simulation useful. See, e.g. Denis Dutton, *Bookmarks*, 14 *PHILOSOPHY AND LITERATURE* 232, 235 (1990) (“[A]lmost everything Baudrillard says is either trite or somehow—vaguely or baldly—false.”); Patricia Cohen, *Jean Baudrillard, 77, Critic and Theorist of Hyperreality, Dies*, N.Y. TIMES (Mar. 7, 2007), <https://www.nytimes.com/2007/03/07/books/07baudrillard.html> (“Like other postmodernists with whom he was often associated . . . he was frequently criticized as obscure.”).

⁸⁷ See RICHARD J. LANE, *JEAN BAUDRILLARD* 84 (2009) (“A first-order simulation would be where the representation of the real (say, a novel, a painting or a map) is obviously just that: an artificial representation.”).

⁸⁸ *Id.* at 84 (“A second-order simulation . . . blurs the boundaries between reality and representation.”).

If once we were able to view the Borges fable⁸⁹ in which the cartographers of Europe draw up a map so detailed that it ends up covering the territory exactly . . . as the most beautiful allegory of simulation, this fable has now come full circle for us, and possesses nothing but the discrete charm of second-order simulacra.⁹⁰

This map entirely covers the geographic reality underneath, which only peeks through in the map's tattered, remote edges.⁹¹ The key difference between a representation and a simulation lies in the fact that a representation reflects reality, while a second order simulation masks it.⁹²

Augmented reality technologies are of particular interest as second order simulations, as they mix "the completely real with the simulated or synthetic [by projecting] images and information in the wearer's line of vision."⁹³ Mixed reality technologies—a specific type of augmented reality—are able to retain specific knowledge of an individual's world in order to keep stable the location of digital objects:

In mixed reality, a user can navigate through the real world and a virtual environment seamlessly, and simultaneously. The virtual objects are accurately positioned in the real-world space. If one moves towards an object it will get larger and vice versa. And when one moves around it, the virtual objects are seen from different angles and perspectives—just like the behavior of real objects.⁹⁴

The ability of new reality technologies to blur the lines between the real and the simulated is one of their core claims and attractions. As these technologies become more common, their users may lose the ability to distinguish between public domain reality and simulation in their everyday lives.⁹⁵ Creators have already started to imagine how this mixed world might appear to a user.⁹⁶ For example, the animator and futurist Keiichi Matsuda

⁸⁹ For this example, Baudrillard draws from a one-paragraph short story from the Argentine postmodernist writer Jorge Luis Borges. Jorge Luis Borges, *On Exactitude in Science*, in COLLECTED FICTIONS 325 (trans. Andrew Hurley, 1999).

⁹⁰ JEAN BAUDRILLARD, *SIMULACRA AND SIMULATION* 1 (Sheila Glaser trans., University of Michigan Press 1994) (1981).

⁹¹ *Id.*

⁹² *Id.* at 6.

⁹³ PEDDIE, *supra* note 12, at 2.

⁹⁴ *Id.* at 23.

⁹⁵ See Joshua Rothman, *Are We Already Living in Virtual Reality?*, NEW YORKER (Apr. 2, 2018), <https://www.newyorker.com/magazine/2018/04/02/are-we-already-living-in-virtual-reality> [<https://perma.cc/R2XM-5XZA>] ("On some level, the brain doesn't know the difference between real reality and virtual reality.").

⁹⁶ Cf. Joanna Stern, *Augmented Reality Will Put the Internet Everywhere*, WALL STREET J. (Oct. 22, 2018), <https://www.wsj.com/articles/augmented-reality-will-put-the-internet-everywhere-1540216800> (attempting to explain her experience testing the Magic Leap AR headset); Magic Leap,

created a video depicting an augmented reality world where the viewer's sight is cluttered with advertisements, games, and messages.⁹⁷ There, only a small slice of the physical world peeks through.⁹⁸ This is the second order of simulation promised by new reality technologies.

In the third order of simulation, a new type of reality is born. Reality becomes hyperreality, which is itself based on a simulation.⁹⁹ Public domain reality, as we know it, disappears as a referent:

With first and second-order simulation, the real still exists, and we measure the success of simulation against the real . . . [T]he model now generates . . . 'hyperreality'—that is, a world without a real origin. So with third order simulation we no longer even have the real as part of the equation.¹⁰⁰

Here, our reality is itself a simulation, and that simulation is based on another simulation, which is based on another simulation, and so on.¹⁰¹ In this kind of copy, the copy is “not merely indistinguishable from what it copies but . . . the very distinction between copy and original disappears.”¹⁰² The role of

Magic Leap, Demo: Waking Up with Mixed Reality, YOUTUBE (Apr. 19, 2016), https://www.youtube.com/watch?v=GmdXJy_IdNw (demonstrating the possibilities of “mixed reality” technologies); *Sir Peter Jackson's Studio Reveals Augmented Reality Demo*, BBC NEWS (July 29 2017), <https://www.bbc.com/news/av/technology-40656678/sir-peter-jackson-s-studio-reveals-augmented-reality-demo> (demonstrating the possibilities for AR as a medium of storytelling).

⁹⁷ Keiichi Matsuda, *HYPER-REALITY*, YOUTUBE (May 19, 2016), <https://www.youtube.com/watch?v=YJgo2ivYzSs>; see also Sarah Gailey, *An Augmented Reality*, ATLANTIC (Dec. 14, 2018), <https://www.theatlantic.com/technology/archive/2018/12/short-story-about-choice-age-wearables/577732> [<https://perma.cc/FZ23-5C2F>] (exploring a troublesome future with AR eyewear); Robot Genius, *Sight*, VIMEO (July 24, 2012), <https://vimeo.com/46304267> (imagining a world in which one can experience augmented reality via contact lenses). That we could live our daily lives with such a perspective is not merely science fiction. Augmented reality eyeglasses are, of course, already on the market. And Samsung, Google, and others are in the process of developing augmented reality contact lenses. Doug Bolton, *Samsung Patents Design for 'Smart' Augmented Reality Contact Lenses*, INDEPENDENT (April 6, 2016), <https://www.independent.co.uk/life-style/gadgets-and-tech/news/samsung-smart-contact-lenses-patent-a6971766.html> [<https://perma.cc/GCY8-7W8Q>]; Tom Anstey, *Sony Files Patent for Augmented Reality Contact Lens*, CLADNEWS (Feb. 14 2017), <http://www.cladglobal.com/CLADnews/architecture-design/AR-VR-technology-Sony-contact-lenses-virtual-reality-augmented-reality-visitor-attractions/330285> [<https://perma.cc/ZNP8-ZA7Q>].

⁹⁸ Matsuda, *supra* note 97.

⁹⁹ See JEAN BAUDRILLARD, *SELECTED WRITINGS* 149 (Mark Poster ed., 2001) (“[R]eality has passed over into the play of reality . . .”); LANE, *supra* note 87, at 98 (“[T]he hyperreal [is] where a kind of virtual reality is produced by models of what we want reality to be.”).

¹⁰⁰ LANE, *supra* note 87, at 84.

¹⁰¹ Baudrillard believed that we are already living in a hyperreality because of the prevalence of simulations in the media. *Id.* at 89 (noting that Baudrillard viewed the post-modern world as being a “society of surfaces, performativity and a fragmentation or fracturing of rationality”). Once again, the socio-cultural aspect of Baudrillard’s theory is not relevant to our legal ontology of reality.

¹⁰² Andrew Wernick, *Simulation*, in *THE BAUDRILLARD DICTIONARY* 199 (Richard G. Smith ed., 2010).

public domain reality as a referent is no longer relevant to the model, as only created reality persists as a referent.¹⁰³ Extending the example of the Borges fable discussed above, Baudrillard explains that in hyperreality, “[t]he territory no longer precedes the map”—instead, the map “precedes the territory.”¹⁰⁴

In summary, the relationship between the original and the copy change due to the nature of the simulation, becoming increasingly blurred as the simulation becomes more accurate. For our purposes, the idea of hyperreality represents a world in which individual perceptions of reality are teeming with created things. In such a world, all of the referents for creative expression are themselves created.¹⁰⁵ It is important that such a world factors into our conceptual model so that we can evaluate how well the current ontology of reality would balance the needs of progress and protection in an entirely created reality. This Comment uses Baudrillard’s three orders of simulation in section III as a structural basis for illustrating how the proposed conceptual model of reality might function for varying levels of simulation. Section IV discusses the potential implications for copyright protection of new reality technologies.

The blurring of the original and the copy, so pronounced in the simulation, has troubling analytical repercussions. Even outside of the realm of the simulation, this blurring has appeared when courts analyze technologies that merely reproduce reality with a high degree of accuracy.

3. Reality-is-Subject-Matter; Originality-is-Variation

The reality-is-original and representation-is-copy metaphors establish that the difference between the original and the copy is essential to understanding the ontology of reality in copyright law. Importantly, we must distinguish between reality itself and a copy of reality because it is only the copy that can obtain copyright protection. In addition, identifying whether the original is public domain reality or itself created is essential to determining infringement. However, there has been a conceptual blurring between the original and the copy in case law on the question of originality in heavily reality-dependent technologies.

The first subsection introduces the reality-is-subject-matter and originality-is-variation metaphors through case law on photography, where highly accurate photographs are perceived as less creative because of the close

¹⁰³ See, e.g., John Carlin, *Culture Vultures: Artistic Appropriation and Intellectual Property Law*, 13 COLUM.-VLA J.L. & ARTS 103, 111 (1988) (“The referent in post-Modern art is no longer ‘nature’ but the closed system of fabricated signs that make up our environment.”).

¹⁰⁴ BAUDRILLARD, *supra* note 90, at 1.

¹⁰⁵ See, e.g., Wendy J. Gordon, *Reality as Artifact: From Feist to Fair Use*, 55 LAW & CONTEMP. PROBS. 93, 100 (1992) (“[M]uch of the modern environment is a product of deliberate human creation—our world is constituted more by buildings and landscape architecture than by natural woods and water—and that art will address as its object much that is itself art.”).

kinship of subject matter with reality. Because the copy so closely resembles the original, the two are conflated or merged.

The second subsection further explores the conflation between copy and original by analyzing judicial reactions to other highly accurate technologies such as scanning and 3-D modeling. By broadly analogizing these technologies to photography, courts have perpetuated the conceptual blurring between original and copy. Perhaps even more problematically, courts have blended the specialized originality standard for derivative works (copies based on copies) with the general *Feist* originality standard (that applies, for instance, to copies based on public domain reality). This has further bolstered the originality-is-variation metaphor for highly accurate technologies, leading to the absurd result of some courts requiring a “distinguishable variation” in hand-drawn illustrations of public domain reality.

a. *Photography*

The invention of photography in the early nineteenth century marked a seismic shift in both aesthetics and technology.¹⁰⁶ Photography, however, was initially embraced for its documentary objectivity rather than its artistic possibilities.¹⁰⁷ The uncanny ability of photography to precisely reproduce reality was particularly threatening during an era in which many fine artists strove for mimesis in their art.¹⁰⁸ Those who argued that photography was fundamentally *not* art stressed its mechanical nature: what was *possibly* artistic in an exact reproduction of reality?¹⁰⁹

¹⁰⁶ For far more extensive discussions of the history of photography in copyright law, see generally Teresa M. Bruce, *In the Language of Pictures: How Copyright Law Fails to Adequately Account for Photography*, 15 W. VA. L. REV. 93 (2012); Christine Haight Farley, *The Lingering Effects of Copyright's Response to the Invention of Photography*, 65 U. PITT. L. REV. 385 (2004); Justin Hughes, *The Photographer's Copyright—Photograph as Art, Photograph as Database*, 25 HARV. J. L. & TECH 339 (2012).

¹⁰⁷ See Farley, *supra* note 106, at 389 (“[P]hotographs were seen as inscrutable conveyers of truth.”); see also CHARLES BAUDELAIRE, *THE SALON OF 1859* (1859), *reprinted in* THE MIRROR OF ART 219, 230 (Jonathan Mayne ed., trans., 1955) (pleading for his readers to reject photography as an art form, but accepting it as the “secretary and clerk of whoever needs an absolute factual exactitude in his profession—up to that point nothing could be better [than photography]”). Louis Daugerre, the inventor of the daguerreotype, advertised that “[t]he daguerreotype is not merely an instrument which serves to draw nature . . . [it] gives her the power to reproduce herself.” Farley, *supra* note 106, at 386 (quoting SUSAN SONTAG, *ON PHOTOGRAPHY* 188 (1978)).

¹⁰⁸ Bruce, *supra* note 106, at 101 (“For centuries, a painter’s goal had been to reproduce reality. But the camera could reproduce reality better than a painting, even in the hands of an amateur; thus, painters and their patrons were threatened by the new device.”).

¹⁰⁹ Alphonse de Lamartine, the French Minister of Foreign Affairs (and also a Romantic poet), wrote in 1848: “It is because of the servility of photography that I am fundamentally contemptuous of this chance invention which will never be an art but which *plagarises* [sic.] *nature by means of optics* The photographer will never replace the painter, one is a Man, the other a machine.” Farley, *supra* note 106, at 418 n.125 (quoting VI ALPHONSE DE LAMARTINE, *COURS FAMILIER DE LITTÉRATURE ENTRETIENS SUR LEOPALD ROBERT* 140 (1858)) (emphasis added).

And for several decades, the evidentiary role of photographs dominated the artistic. The reality-is-subject-matter metaphor was predominant;¹¹⁰ as Susan Sontag notes, photographs were seen as “miniatures of reality.”¹¹¹ The reality-is-subject-matter metaphor emerged: the subject matter of a photograph *was* reality, plain and simple.

Photographs were not included in the Copyright Act until thirty-nine years after the first photograph was taken, and the originality of photographs was not addressed by the Supreme Court for another nineteen years.¹¹² At that point, the Court in *Burrow-Giles Lithographic Co. v. Sarony* determined that photographs were, indeed, protectable.¹¹³ Proponents of photography as an art form achieved this legal victory through what has been called the pictorial rationale. The way for photographers to obtain artistic legitimacy, under this rationale, was to imitate traditionally protected pictures—namely paintings.¹¹⁴ In the photography-is-painting metaphor, photographers found a powerful source domain to explain the creative nature of photography while garnering artistic merit and acceptance.

The transfer of knowledge from source to target domain, however, overwhelmed the very realism that distinguished photographs from other mediums. The pictorial rationale for artistic legitimacy snubbed the idea that photographs were objective and accurate representations of reality. Photographers recoiled against the reality-is-subject-matter metaphor and strove to make their photographs look like paintings—or in other words, like traditional *representations* of reality, not reality itself.¹¹⁵ To achieve this, photographers posed their subjects preshutter, and distorted or manipulated

¹¹⁰ Later courts and commentators have bolstered the reality-is-subject-matter metaphor by arguing that in the context of visual arts, the idea/expression dichotomy is not useful because the idea is coextensive with the subject matter. *See, e.g.,* Mannion v. Coors Brewing Co., 377 F. Supp. 2d 444, 461 (S.D.N.Y. 2005) (“In the context of photography, the idea/expression distinction is not useful or relevant.”). Under this view, the idea is a description of the subject matter, which is coextensive with the reality depicted in the photograph. *Id.*

¹¹¹ Susan Sontag, in her influential treatise on photography, explained the common understanding of photography as truth-bearing: “[p]hotographed images do not seem to be statements about the world so much as pieces of it, miniatures of reality that anyone can make or acquire.” Sontag, quoted in Hughes *supra* note 106, at 344-45.

¹¹² Bruce, *supra* note 106, at 96 (noting that Congress’s list of photographs in the Copyright Act was not challenged by litigants in the Supreme Court until “some twenty years later”).

¹¹³ 111 U.S. 53, 56-61 (1884) (addressing the originality question and holding that photographs were of sufficient originality, authorship, and intellectual creation to be protectable by Congress).

¹¹⁴ *See* Farley, *supra* note 106, at 417 (referring to this approach as “picture-making, as opposed to picture-taking”).

¹¹⁵ Bruce, *supra* note 106, at 102. As Bruce notes, these paintings were themselves distorted representations of reality. *See id.* at 103 (“They were contrived, not candid, representations of life [P]ainters were striving for, and making claims to, naturalism, but faking it.”).

the photographs postshutter.¹¹⁶ To be *artistic*, the argument went, the photograph must not look particularly *real*. Photographic representations of reality could either be: (1) manipulated or mediated, and thus artistic and original; or (2) unmediated, and thus accurate and unoriginal.¹¹⁷ In photography, all representations of reality were not equal.

This pictorial ethic was not challenged until the close of the century with the emergence of the “straight photography” movement,¹¹⁸ and thus, the Supreme Court first encountered the issue of originality in photographs during a period in which the pictorial ethic was predominant.¹¹⁹ In other words, the Supreme Court first confronted the issue of originality in photography when the subject matter of photographs was principally a staged or composed reality.

In *Burrow-Giles Lithographic Co. v. Sarony*, the Supreme Court addressed whether a (now famous) photograph of Oscar Wilde was sufficiently original to obtain copyright protection.¹²⁰ In arguing that photographs were categorically not creative enough for copyright protection, the defendant emphasized two characteristic aspects of photographic technology: (1) its mechanical nature, and (2) its ability to reproduce reality with complete accuracy. Noncommittally, the Court accepted the premises of this argument. Yes, the Court conceded, a photograph *may* be entirely unoriginal when it merely “[transfers] to the plate the visible representation of some existing object, *the accuracy of this representation being its highest merit*.”¹²¹ The Court referred to this as the “ordinary production of a photograph,” but refused to decide exactly when photographs became merely “ordinary” and thus unoriginal.¹²²

This equivocation was because the photographer’s production of a photograph was, in the Court’s judgment, not ordinary, but artistic, with the Court describing it as “useful, new, harmonious, characteristic, and graceful.”¹²³ The photograph of Oscar Wilde was sufficiently creative because

¹¹⁶ Early photographers commonly manipulated their photographs postshutter, for example, by adding brushstrokes, coloring the image, or developing the photograph in a way that made the images dream-like and distorted. Bruce, *supra* note 106, at 103-04.

¹¹⁷ See Farley, *supra* note 106, at 389, 393 (identifying this “contest of meanings” in photography as the “battle between photography as art and photography as truth”).

¹¹⁸ This challenge was also known as the Photo-Secessionist movement, which argued that “straight photography”—photography that focused on realism and accuracy—should be accepted as art based on its own aesthetic merits. Bruce, *supra* note 106, at 105-06.

¹¹⁹ Because of this, although society has become comfortable with accepting straight photography as an art form, the law has not caught up. See, e.g., *id.*, at 102 (“[T]he courts have not quite figured out how to accommodate straight photographs as highly-expressive works entitled to copyright protection as stringent as that afforded to pictorial photographs.”).

¹²⁰ 111 U.S. 53, 54-55 (1884).

¹²¹ *Id.* at 59 (emphasis added).

¹²² *Id.*

¹²³ *Id.* at 60.

the photographer created or composed the subject matter (i.e., the reality). He “gave visible form” to “his own original mental conception” by: “posing the said Oscar Wilde in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph . . . arranging and disposing the light and shade, suggesting and evoking the desired expression, and . . . [producing] such disposition, arrangement, or representation, made entirely by [the photographer] . . .”¹²⁴ The photograph was original because of Sarony’s selection, coordination, and arrangement of the subject matter.¹²⁵ In other words, it was creative precisely because the reality was staged or composed by the photographer.¹²⁶

Thus, *Burrow-Giles* distinctly privileged photographs that depicted a created or composed reality as garnering greater protection under

¹²⁴ *Id.* Farley argues that the court’s finding of originality in “preshutter activities” was an important analytical move because it allowed the court to distance the *artistic* activities from the mechanical aspects of photography:

It is the setting up of the photograph which is artistic and deserving of copyright. Beyond the click of the shutter, and incidentally, not including the actual click of the shutter, the Court did not conceive of any authorship. In this way, the Court was straining to locate authorship away from the [mechanical] box.

Farley, *supra* note 106, at 427. In addition, locating originality in preshutter activities allowed the accuracy of photography to be maintained. In this view, there is no human interference in the mechanical ability of photography to capture exactly the scene in front of it:

The focus on process is therefore evidence of a certain understanding of photography that has persevered to the present: that the photograph is simply a duplication of nature unless it is actively constructed. To hold otherwise would be to admit that all photographs . . . are constructed by choice.

Id. at 432.

¹²⁵ Note the similarity to the standard for originality in compilations of facts in *Feist*, wherein the Court stated that “[f]acts are never original, so the compilation author can claim originality, if at all, only in the way the facts are presented. To that end, the statute dictates that the principal focus should be on whether the selection, coordination, and arrangement are sufficiently original to merit protection.” 499 U.S. 340, 358 (1991); *see also* Hughes, *supra* note 106, at 342 (arguing that “the problem of copyright protection for photographs is really the same problem as copyright protection for compilations of fact because photographs are, from one perspective, databases”). Reality as fact is discussed more in subsection II.B. For a more modern example of originality in the composition of the subject matter, *see* *Rogers v. Koons*, 751 F. Supp. 474, 477 (2d Cir. 1990). In *Rogers*, the Second Circuit held that a photograph of a couple with a litter of eight puppies was original because the photographer posed the subjects:

It is of course the fact that [the couple’s] German Shepherd produced a litter of eight puppies; that the [couple] thought the puppies were cute; and that they asked Rogers [the photographer] to photograph them. But the manner in which Rogers arranged his subjects and carried out his photographer’s art constitutes a protectible original act of expression.

Id.

¹²⁶ *See* Hughes, *supra* note 106, at 362 (defining created reality as a “composition [that] exists in reality—albeit momentarily”).

copyright law. Any other subject matter was simply not creative. The legacy of *Burrow-Giles* is that the more accurately the copy resembled the original (where the original is not created by the author), the less creative it is in the eyes of the courts; the more the copy diverged from the original, the more creative. In other words, creativity-is-variation. This is an example of a prototype effect, where one category member is considered to be a better example of the central case (here, creativity) than another category member.¹²⁷ In photography, the inaccurate has been considered far more creative than the accurate.¹²⁸

This judicial preference for inaccurate photographs has been memorialized in copyright doctrine. As time went on and the “straight photography” aesthetic gained prominence and acceptance, courts had to analyze originality in accurate, spontaneous photographs of subject matter that was neither composed nor staged.¹²⁹ The black letter law is that there is no protection for

¹²⁷ See WINTER, *supra* note 15, at 85 (explaining the prototype effect through experiments where half the subjects were asked to list characteristics average or typical to a category and half were asked to list characteristics ideal or definitive of the category).

¹²⁸ This tendency to split works into a binary between the creative and the accurate appears throughout copyright law. For example, in the context of the fair use analysis, the Supreme Court has noted that fictional works are closer to the core of intended copyright protection than factual works. *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 586 (1994). The Third Circuit, in the context of determining the originality of a print of cardinals perched on an apple blossom (an example of public domain reality), made its preference for an unrealistic artistic style blatant:

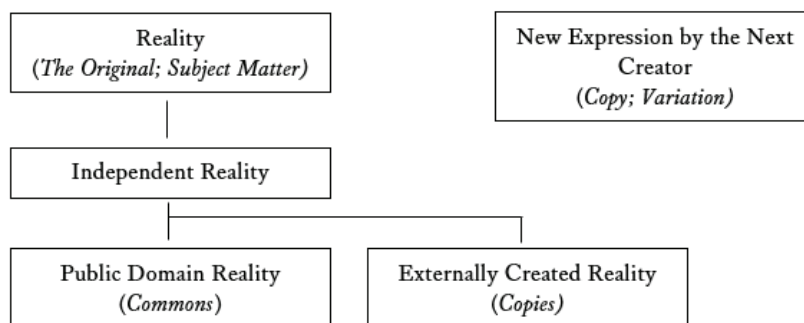
Moreover, in the world of fine art, the ease with which a copyright may be delineated may depend on the artist's style. A painter like Monet when dwelling upon impressions created by light on the façade of the Rouen Cathedral is apt to create a work which can make infringement attempts difficult. On the other hand, an artist who produces a rendition with photograph-like clarity and accuracy may be hard pressed to prove unlawful copying by another who uses the same subject matter and the same technique. A copyright in that circumstance may be termed ‘weak,’ since the expression and the subject matter converge. In contrast, in the impressionist's work the lay observer will be able to differentiate more readily between the reality of the subject matter and the subjective effect of the artist's work.

Franklin Mint Corp. v. Nat'l Wildlife Art Exch., 575 F.2d 62, 65 (3d Cir. 1978) (internal citations omitted). Here, the court reveals that unrealistic representations are simply easier for judges to grapple with when determining questions of infringement. Inaccuracies in representation allow the court to determine whether the work was copied from another work or from public domain reality. But underlying this passage is a fundamental preference for photographs that resemble painting and illustration, the traditional beacons of artistic legitimacy.

¹²⁹ See Bruce *supra* note 106, at 119 (“Today, the art world not only accepts straight photography as a legitimate aesthetic vis-à-vis pictorialism, it arguably recognizes it as the superior aesthetic.”). Courts have folded photographs of independent reality into copyright protection by finding originality in characteristics of photography beyond the composed subject matter articulated in *Burrow-Giles*: originality in rendition and originality in timing. See, e.g., *Mannion v. Coors Brewing Co.*, 377 F. Supp. 2d 444, 451-52 (S.D.N.Y. 2005) (summarizing that, in addition to originality in the creation of the subject matter, a photograph may be original in either rendition or timing); Hughes, *supra* note 106, at 367 (explaining that in a photograph of

the subject matter in such photographs: “artists have no copyright in the ‘reality of [their] subject matter.’”¹³⁰ It is worth, at this point, pausing to parse out this statement conceptually in relation to the reality-is-subject-matter metaphor. The statement implies that subject matter includes both reality and something else: a non-reality. *Burrow-Giles* reveals that some subject matter *does* obtain protection: subject matter created or composed by the author. Thus, we can parse out the subject matter that is *not* protected—the reality of an author’s subject matter—as that which is *not created by the author*. This may include things that are not created by anyone (public domain reality) and things that are created by someone other than the author (what this Comment refers to as “externally created reality”). Collectively, this Comment classifies both public domain reality and externally created reality as “independent reality”—those parts of reality that exist irrespective of the particular author or work at hand.¹³¹ This Comment uses the term “new expression” to refer to those parts of reality that are created by the author at hand, whom this Comment terms the “next creator.” Figure 3 shows the addition of these categories to our ontology of reality.

Figure 3: The Beginning Outlines of Our Ontology of Reality



In sum, the reality-is-subject-matter conceptual metaphor from photography case law reveals that authorship is closely intertwined with how

independent reality, “[t]he reality does not change at all,” but the selection of ways to render the image (including camera angle, lighting, etc.) or selection of timing produces “the particular arrangement of the objects in the photograph”).

¹³⁰ *Leigh v. Warner Bros.*, 212 F.3d 1210, 1214 (11th Cir. 2000) (quoting *Franklin Mint Corp. v. Nat’l Wildlife Art Exch.*, 575 F.2d 52, 65 (3d Cir. 1978)). There is only protection for the rendition (including such things as choice of angle and lighting) and the timing. This protection has been called, variously, thin or porous.

¹³¹ I borrow this term from Hughes, who introduced the concept of “independent reality.” Hughes, *supra* note 106, at 367.

courts analyze the protectability of works that use reality as a referent. Where the next creator creates or composes the reality (in other words, creates subject matter that is new expression), a court is more likely to find creativity and thus originality. Where the reality is independent of the author—in other words, where the next creator did not herself create or compose the subject matter—courts are far more reluctant to deem the work creative. Thus, it is important that our ontology of reality distinguish between “new expression” by the next creator and pre-existing expression by other authors (externally created reality).

In modern photography cases, courts have looked outside the subject matter to locate originality.¹³² However, for purposes of our ontology, it is nonetheless important to remember that courts privilege *inaccurate* representations of reality over accurate ones. This originality-is-variation metaphor, rooted in photography case law, has led to a problematic conceptual blurring when applied to other new, highly accurate technologies. Taking the mandate from photography that subject matter is not protected unless it is somehow manipulated, courts demand inaccuracy even in representations of public domain reality. However, from *Bleistein*, we know that public domain reality should be an open and accessible referent for copying. In the words of Holmes, creators are “free to copy the original.”¹³³

Despite the special nature of public domain reality as referent, when confronted with highly accurate technologies, courts have imposed a more stringent originality standard on representations of public domain reality—one that is usually reserved for highly accurate representations of externally created reality. Thus, the originality-is-variation metaphor—when taken to the extreme—threatens to collapse the essential analytical distinction between public domain reality and externally created reality as referent.

b. *3-D Modeling and Scanning*

As this Comment outlined in the previous subsection, the original, as we commonly understand it, may include both cases where the original is externally created reality (created by other authors) and cases where the original is public domain reality (not created by any author). In copyright law, however, there is a specialized originality standard for derivative works (copies of externally created reality) where inaccuracy in a copy is correlated with originality. Section 101 of the Copyright Act defines “[a] ‘derivative work’ as a work *based upon one or more preexisting works*, such as

¹³² See *supra* notes 129–130 (introducing the concepts of originality in rendition and timing).

¹³³ 188 U.S. 239, 249 (1903).

[an] . . . art reproduction . . . or any other form in which a work may be recast, transformed, or adapted.”¹³⁴

In *Alfred Bell & Co. Ltd. v. Catalda Fine Arts, Inc.*, the Second Circuit established the “distinguishable variation” standard for derivative works: a reproduction of a work is original if there is a distinguishable variation from the work.¹³⁵ This standard requires some inaccuracy in the reproduction—a requirement stemming from the prohibition of the *copying* of other works in the originality standard.¹³⁶ If exact *copying* of another work is prohibited, then a reproduction of a work must necessarily be inexact in order to be protected. Thus, the originality standard for derivative works canonized the originality-is-variation metaphor into black letter law.

However, the analytical significance of distinguishing between public domain reality as referent and externally created reality as referent has been disregarded by several courts when analyzing works that are highly accurate representations. *Bleistein* tells us that reproductions of “actual groups [and] visible things” are part of the privileged category of reproductions of public domain reality.¹³⁷ These reproductions are likely independently created and do not risk infringement because they do not copy other works. On the other hand, a work “which is no more than a copy of the work of another”¹³⁸ is a reproduction of externally created reality, which is treated very differently because of the risk of potential infringement and the likelihood that the work was not independently created.

However, as a consequence of the strong prototype effect where accuracy in a copy of reality leads it to be considered less creative, courts have conflated the originality analysis of a derivative work with the standard originality analysis. Considering the centrality of the reality-is-commons conceptual metaphor, which tells us that individuals are free to copy any aspects of reality

¹³⁴ 17 U.S.C. § 101 (2012) (emphasis added).

¹³⁵ 191 F.2d 99, 102-05 (2d Cir. 1951). For the sake of simplicity, this Comment focuses on the baseline “distinguishable variation” requirement for originality in derivative works. However, the predominant test today is slightly more complicated. See, e.g., *Entm’t Research Grp. v. Genesis Creative Grp.*, 122 F.3d 1211, 1220 (9th Cir. 1997) (noting that for a finding of copyright protectability “the original aspects of a derivative work must be more than trivial” and “must reflect the degree to which [the derivative work] relies on preexisting material and must not in any way affect the scope of any copyright protection in that preexisting material”) (quoting *Durham Indus. v. Tomy Corp.*, 630 F.2d 905, 909 (2d Cir. 1980))). The key takeaway for our purposes is that the majority of courts recognize that the originality standard for derivative works is *different from—and indeed, more rigorous than*—the baseline originality standard articulated in *Feist*.

¹³⁶ Recall that the *Feist* standard for originality requires “independent creation,” i.e., the absence of copying. See *supra* note 23 and accompanying text. This derivative works test can be understood as defining further when something is an independent creation as opposed to being copied.

¹³⁷ *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 249-50 (1903).

¹³⁸ *Bridgeman Art Library v. Corel Corp.*, 25 F. Supp. 2d 421, 427 (S.D.N.Y. 1998) [hereinafter “*Bridgeman I*”].

which have no human author (public domain reality), this blurring is troublesome. It leads to works that accurately reproduce public domain reality—an open and free referent for creativity—being dismissed as unprotectable simply because they are accurate.

In *Bridgeman Art Library v. Corel Corp.*, for example, the plaintiff created photographic reproductions of public domain works of art.¹³⁹ The Southern District of New York held that the images were not original because they were “copied from the underlying works without any avoidable addition, alteration, or transformation.”¹⁴⁰ The court in *Bridgeman* applied a derivative works analysis. And under the facts of this case, rightfully so—the work at issue was a copy of a preexisting work, or in other words, a copy of externally created reality. However, the court inserted an intent requirement¹⁴¹ into its analysis of originality in the derivative work—the photographer must not have intended to produce an accurate copy—and did not clearly confine this intent requirement to the case of derivative works:

Certainly anyone who has seen any of the great pieces of photography—for example, Alfred Eisenstadt’s classic image of a thrilled sailor exuberantly kissing a woman in Times Square on V-J Day, the stirring photograph of U.S. Marines raising the American flag atop Mount Surabachi on Iwo Jima, Ansel Adams’ work and the portraits of Yousuf Karsh—must acknowledge that *photographic images of actual people, places and events* may be as creative and deserving of protection as purely fanciful creations. But one need not deny the creativity inherent in the art of photography to recognize that a *photograph which is no more than a copy of the work of another as exact as science and technology permit* lacks originality . . . The more persuasive analogy is that of a photocopier.¹⁴²

The court began by discussing the (correct) proposition that accurate representations of public domain reality may be protected under copyright law. After this detour, the court transitioned immediately back into a derivative works originality analysis, holding that a photograph which is an accurate copy of another work is not protectable. Although the court implicitly recognized the distinction between public domain reality and externally created reality in this passage, this recognition is cloaked by the

¹³⁹ *Id.* at 426.

¹⁴⁰ *Id.*

¹⁴¹ Where the photograph “amounts to nothing more than [a] slavish [copy],” the court reasoned, it lacks originality. *Bridgeman Art Library v. Corel Corp.*, 36 F. Supp. 2d 191, 196 (S.D.N.Y. 1999) [hereinafter “*Bridgeman II*”]. Something is a slavish copy when the intent is to reproduce “with absolute fidelity.” *Id.* at 197. The court stressed that it was appropriate to inquire into what “the point of the exercise was.” *Id.* at 197.

¹⁴² *Bridgeman I*, 25 F. Supp. 2d at 427 (emphasis added).

overarching comparison of photography case law *generally* to the photograph of externally created reality at issue.

By using the case law of photography *generally* to explain the originality doctrine in derivative works and its application to highly accurate reproductions, the court obscured the fact that photography case law deals with reality-as-referent in very different ways depending on its particular nature (i.e. whether it is new expression by the next creator, whether it is created by another author, or whether it has no human author).¹⁴³ Importantly, the derivative works analysis is only applicable to the particular situation where a work is a copy of externally created reality, but photography case law *generally* deals with all three types of referents.

This imprecision in the use of photography as a source domain has been perpetuated by later courts. There, the imprecision of using photography *generally* as a source domain has led to a redoubling of the prototype effect where accurate works are seen as less deserving of copyright protection.

Such a redoubling in the prototype effect emerges in the case of *Meshwerks v. Toyota Motor Sales U.S.A.*, where the Tenth Circuit Court of Appeals analyzed the protectability of a highly accurate 3-D model of a Toyota car. *Meshwerks* is, at its core, a derivative works case, but follows in *Bridgeman*'s footsteps by blurring derivative works case law with case law regarding originality in photography *generally*. In *Meshwerks*, we see the Tenth Circuit using a broad analogy to photography to justify subjecting all highly accurate mediums—without regard to the nature of the referent—to the same (heightened) originality standard. The plaintiff, Meshwerks, created models of Toyota vehicles for use in Toyota's advertising.¹⁴⁴ Meshwerks created the models by collecting physical data points from the vehicles, using modeling software to generate digital images, and then manually fine-tuning them to portray the vehicles as accurately as possible.¹⁴⁵ The defendant in *Meshwerks* argued that the wire-frame models were

¹⁴³ See *supra* subsection II.A.3.a.

¹⁴⁴ *Meshwerks, Inc. v. Toyota Motor Sales U.S.A. Inc.*, 528 F.3d 1258, 1260 (10th Cir. 2008). Three-dimensional modeling has become an increasingly common medium of expression. See *generally* NEIL GERSHENFELD, *DESIGNING REALITY* (2017) (imagining a world in which digital fabrication of 3-D objects will become the norm). A recent example is "The Other Nefertiti" project. In October 2015, artists snuck into the Berlin museum and claimed to scan the bust of Nefertiti with a mobile device and reprint it on a 3-D printer. The artists released the data to the world for anyone to download and print. Charly Wilder, *Swiping a Priceless Antiquity . . . With a Scanner and a 3-D Printer*, N.Y. TIMES (Mar. 1, 2016), <https://www.nytimes.com/2016/03/02/arts/design/other-nefertiti-3d-printer.html>; see also Charly Wilder, *Nefertiti 3-D Scanning Project in Germany Raises Doubts*, N.Y. TIMES (Mar. 10, 2016), <https://www.nytimes.com/2016/03/11/arts/design/nefertiti-3-d-scanning-project-in-germany-raises-doubts.html> (raising doubts as to whether the technology was really sufficient for the artists to 3-D scan the bust).

¹⁴⁵ 528 F.3d at 1260.

unoriginal because all originality was attributable to the Toyota car design, which Meshwerks was merely reproducing accurately.¹⁴⁶ The court agreed, holding that the wire frame models were not the independent creation of an author.¹⁴⁷ But what is important for our purposes is not the court's holding, but the structure of its reasoning.

Judge (now Supreme Court Justice) Gorsuch framed his reasoning purely in terms of a standard originality analysis, rather than a derivative works originality analysis. Indeed, Judge Gorsuch explicitly declared that the derivative works analysis for originality is *no different* than a standard originality analysis.¹⁴⁸ Accordingly, he listed cases involving both “copies of facts in the world” and “copies of prior works of art” as analogous to the case at hand.¹⁴⁹

Despite claiming to apply the ordinary *Feist* originality standard, the court inserted a heightened bar—usually only reserved for derivative works—by requiring that the author must not have intended to copy the referent accurately. The court created a two-part test for distinguishing a copy from an independent creation in the context of 3-D models: (1) the court must make an objective assessment of the particular models, and (2) the court must make an objective assessment of the parties' purpose in creating the models.¹⁵⁰ This test reveals the Frankenstein nature of merging a derivative-works and standard originality analysis. In analyzing the first prong, the court applied the standard means of assessing originality in photography, reciting almost wholesale the possible sources of originality in rendition.¹⁵¹ In analyzing the second prong, the court cited derivative works cases (including *Bridgeman*) that have considered a person's intent regarding the accuracy or inaccuracy of her copying.¹⁵² Here, because the very nature of the technology was to reproduce its referent accurately,¹⁵³ the court held that the models were not independently created. In effect,

¹⁴⁶ *Id.* at 1261.

¹⁴⁷ *Id.* at 1264.

¹⁴⁸ *Id.* at n.7 (“[T]he originality analysis ought to be the same.”). *But see* *Ets-Hokin v. Skyy Spirits, Inc.*, 225 F.3d 1068, 1073 (9th Cir. 2000) (suggesting that the derivative works standard for originality is different than the general originality standard for photography).

¹⁴⁹ *Meshwerks*, 528 F.3d at 1267.

¹⁵⁰ *Id.* at 1264.

¹⁵¹ *Id.* at 1265 (noting that *Meshwerks* “did not make any decisions regarding lighting, shading, the background in front of which a vehicle would be posed, the angle at which to pose it, or the like” necessary to create a “new expression[] subject to copyright protection”).

¹⁵² *Id.* at 1269 (“Other courts before us have examined and relied on a putative copyright holder's intent in holding that the resultant work was not original and thus subject to copyright protection.”).

¹⁵³ The very nature of the technology may be enough evidence of an intent to reproduce the referent accurately. *See, e.g., id.* at 1269 (using the fact that “*Meshwerks* has consistently described digitization and modeling as an attempt accurately to depict real-world, three-dimensional objects as digital images viewable on a computer screen” to suggest an intent to copy rather than create original expression).

this test subjects all highly accurate mediums to the more rigorous standard of originality in derivative works.¹⁵⁴

How was the fundamental analytical distinction between copies of public domain reality and copies of externally created reality lost here? *Meshwerks* reaffirms the core culprit: the highly attractive, yet insidious, temptation on the part of judges to perceive *all* highly accurate, reality-reproducing technologies as analogous while utterly disregarding the particular nature of the referent. As long as the technology reproduces its referent with a high degree of accuracy, courts overlook the analytical significance of recognizing whether the referent is public domain reality, externally created reality, or new expression. In *Meshwerks*, for example, Judge Gorsuch relied heavily on the originality doctrine in photography in his analysis, reasoning that three-dimensional digital modeling and photography are alike in that they both seek to mimic reality.¹⁵⁵

But what can be said, at least based on received copyright doctrine, to distinguish an independent creation from a copy? And how might that doctrine apply in an age of virtual worlds and digital media that seek to mimic the “real” world, but often do so in ways that undoubtedly qualify as (highly) original? While there is little authority explaining how our received principles of copyright law apply to the relatively new digital medium before us, some lessons may be discerned from how the law coped in an earlier time with a previous revolution in technology: photography.¹⁵⁶

The conceptual metaphor of modeling-is-photography, in itself, is not unreasonable. The analytical move is as follows: the work before the court is a *highly accurate* representation of another work, which may be analogized to photographs because they are *highly accurate* representations of reality generally. However, the only thing the source domain and target domain have in common is their accuracy; they use completely different referents. And what our ontology of reality in copyright law has taught us so far is that the *nature of the referent matters*.

Later courts, citing derivative works cases, have demanded that that representations of public domain reality are inaccurate because derivative works case law requires a “distinguishable variation” and an intent not to accurately reproduce the referent. While these requirements may make

¹⁵⁴ This standard for derivative works is more rigorous because of the need to protect an underlying copyrighted work. *See, e.g.,* Entm’t Research Grp. v. Genesis Creative Grp., 122 F.3d 1211, 1220 (9th Cir. 1997) (discussing the purpose behind requiring that derivative works have adequate originality).

¹⁵⁵ Indeed, Judge Gorsuch said that the 3-D models were merely “practically advantageous substitutes” for photographs. *Id.* at 1264.

¹⁵⁶ *Id.* at 1263.

sense in the context of a copy that reproduces externally created reality, they are illogical in the context of technologies that reproduce public domain reality¹⁵⁷ because the very nature of these technologies is to accurately represent subject matter that, under the reality-is-commons conceptual metaphor, should be open to all for use as a referent.¹⁵⁸ The problems of this approach have particularly appeared as later courts applied *Meshwerks* to non-derivative works.

The rationale of *Meshwerks*, for example, has been applied in the context of two-dimensional scanning. The court in *Home Legend, LLC v. Mannington Mills, Inc.* faced the question: are two-dimensional scans¹⁵⁹ of wood planks, where designers manipulated the planks to look more time-worn, sufficiently original?¹⁶⁰ The Northern District of Georgia answered: no.¹⁶¹ The District Court reasoned that the scan was not sufficiently original because the plaintiff simply sought to recreate reality in another medium.¹⁶² The scans, the court

¹⁵⁷ The very nature of augmented reality is to combine created works with public domain. *See, e.g. Take a Trip to the London of Yesteryear with New App*, METRO, <https://metro.co.uk/2014/02/26/take-a-trip-to-the-london-of-yesteryear-with-new-app-4322243> [<https://perma.cc/8HV9-GXGH>] (describing an application that allows users to combine historical images of the London city streets with modern images at the same locations). While this Comment does not address this potential complexity, courts will likely have to tackle the issue of whether the regular originality analysis and derivative works analysis should interrelate.

¹⁵⁸ Highly accurate copies of public domain reality may still be unoriginal for other reasons; for example, they may not contain the minimal creativity required by *Feist*. However, these works should not fail the originality standard because they are not independently created—this would be an analytically unsound result, as this prong is concerned only with whether the work was copied from another work, i.e. a copyrightable referent. *See Feist Publ'ns Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991) (“Original . . . means only that the work was independently created by the author (*as opposed to copied from other works*) . . .” (emphasis added)); *Ets-Hokin v. Skyy Spirits, Inc.*, 225 F.3d 1068, 1079 (9th Cir. 2000) (“[T]he term ‘work’ or ‘works’ is used throughout the Copyright Act to refer to the ‘subject matter’ that the act is designed to protect: ‘original works of authorship.’”). Since public domain reality is not a copyrightable work, a copy of public domain reality usually should not fail because it is not an independent creation (excluding rare instances where, for example, there is not independent creation because there is no human author).

¹⁵⁹ Michael Weinberg correctly argues that analogizing to photography doesn’t provide any clear answers for scanning, but proposes a new intent-based test that fundamentally perpetuates the requirement from photography case law that subject matter must be manipulated “pre-shutter” (here, pre-scanning) in order to be original. *See* MICHAEL WEINBERGER, 3D SCANNING: A WORLD WITHOUT COPYRIGHT 7-8 (2016).

¹⁶⁰ 32 F. Supp. 3d 1273 (N.D. Ga. 2014) *rev’d* 784 F.3d 1404 (11th Cir. 2015).

¹⁶¹ *Home Legend*, 32 F. Supp. 3d at 1280.

¹⁶² *See id.* at 1282 (reasoning that the scans were not original because the plaintiff merely sought to “copy the look of rusted wood . . . simply attempt[ing] to recreate the look of natural, rustic wood in another medium—artwork”).

reasoned, were analogous to accurate molds of natural objects.¹⁶³ And a design based in an intent to accurately copy natural elements is unoriginal.¹⁶⁴

The Eleventh Circuit Court of Appeals reversed, using a wholesale analogy to photography to hold that the scans of wood planks were sufficiently original.¹⁶⁵ The court found originality in the creation of subject matter, listing various “pre-scanning” activities that the designers engaged in to manipulate the planks: staining, painting, and using hand tools on the wood.¹⁶⁶ The creative choices were the color of the wood and the location and character of the marks.¹⁶⁷ If the designers had merely scanned raw wood planks without altering the color or texture the images would not have been protectable.¹⁶⁸ *Home Legend* sharply reveals the analytical significance of identifying the correct nature of the referent: the District Court found there was no originality through characterizing the referent as public domain reality, while the Court of Appeals found originality by characterizing the referent as created or composed subject matter—new expression.

Meshwerks also has, rather absurdly, been applied to traditional representations of reality such as wildlife illustrations. In *Tomelleri v. Zazzle*, for example, the District of Kansas painstakingly analyzed the ways in which an illustration of a fish varied from the public domain reality of the fish itself.¹⁶⁹ The plaintiff was a highly skilled fish illustrator who worked from photographs and specimens of the fishes that he was illustrating.¹⁷⁰ The illustrator had a “reputation for showing exactly what fish look like.”¹⁷¹ The defendant argued that the plaintiff’s illustrations

¹⁶³ See *id.* (analogizing to *Proline Concrete Tools, Inc. v. Gord Dennis*, in which the District Court for the Northern District of California held that sculptures that were molds of existing stones or rocks were unoriginal).

¹⁶⁴ *Id.* at 1282 n.7.

¹⁶⁵ *Home Legend, LLC v. Mannington Mills, Inc.*, 784 F.3d 1404, 1410 (11th Cir. 2015). Although applying the standard for originality in photography without much reasoning (besides citing to *Meshwerks*, which makes the same analytical move for 3-D models), the court admits that scanning is far more difficult to think of in terms of preshutter activities:

And while photographs of natural objects may be original, it is difficult to imagine that the “selection of lighting, shading, timing, angle, and film” in a scan of raw wood plank—the goal being to duplicate as exactly as possible the appearance of that plank in a digital medium so that it could be faithfully reproduced on laminate flooring—would be sufficiently original to support a copyright in such an individual image.

Id. at 1410.

¹⁶⁶ *Id.* at 1410.

¹⁶⁷ *Id.*

¹⁶⁸ See *id.* (“Ideas alone are not protectible.”).

¹⁶⁹ No. 13-02576, 2015 WL 8375083 (D. Kan. Dec. 9, 2015).

¹⁷⁰ *Id.* at *1-2.

¹⁷¹ *Id.* at *1.

were not original because they were accurate depictions of real animals.¹⁷² Even in a traditional art form, in which the artist was working directly from public domain reality, the court applied *Meshwerks* and analyzed (1) whether there was a distinguishable variation between the illustration and the real-life specimen, and (2) the artist's intent in creating the illustration.¹⁷³ The court held that the illustration was original because there were distinguishable variations between the real fish and the drawing and because the artist's intent was to be accurate, but not photorealistic.¹⁷⁴ That the court even engaged in this painstaking analysis to determine the originality of an illustration based on an animal specimen—not another work—is, frankly, absurd.¹⁷⁵ The heart of the reality-is-commons conceptual metaphor is that individuals are free to “copy the original” where it is public domain reality.¹⁷⁶

These case studies highlight the analytical blurring that follows from jurists lacking a clear ontology of reality when tackling the protectability of highly accurate technologies. Fundamentally, courts neglect the analytical significance of reality as referent. Especially when courts engage in a wholesale analogy of new, highly accurate technologies to photography, they must be aware of the particular way in which photography case law navigates reality as a referent. Where public domain reality is the referent, the issue is not independent creation, but whether the resulting work meets the *Feist* requirement of minimal creativity (for example, through rendition or timing). Where externally created reality is the referent, a derivative works originality analysis may apply to ensure that giving copyright protection to the new work will not encroach on copyright protection for the preexisting work. And finally, where new expression is the referent,

¹⁷² See *id.* at *9 (“Defendant argues that Plaintiff’s illustrations are not entitled to copyright protection because they are accurate representations of real animals and therefore lack originality.”).

¹⁷³ *Id.* at *8.

¹⁷⁴ *Id.* at *9.

¹⁷⁵ For a more appropriate analysis of realistic animal representations, see *Satava v. Lowry*, 323 F.3d 805 (9th Cir. 2003). In *Satava*, the plaintiff glass artist created realistic sculptures of jelly fish encased in glass. *Id.* at 807. The court held that such sculptures obtain very thin copyright in the elements of artistic expression that were not *scenes a faire*, or in other words, were not essential to the depicting the animal itself:

Nature gives us ideas of animals in their natural surroundings: an eagle with talons extended to snatch a mouse; a grizzly bear clutching a salmon between its teeth; a butterfly emerging from its cocoon; a wolf howling at the full moon; a jellyfish swimming through tropical waters. These ideas, first expressed by nature, are the common heritage of humankind, and no artist may use copyright law to prevent others from depicting them.

Id. at 813. The court focused here on not “cheat[ing] the public domain” by protecting bare reality. *Id.* at 813.

¹⁷⁶ *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 249 (1903).

photography case law tells us that copyright protection extends to the subject matter itself. Thus, to tackle new reality technologies, it is analytically essential that courts understand whether reality-as-referent was created, and if so, by whom.

B. *Reality-is-Facts; Facts-are-Discoveries*

Scholars and jurists often use the language of facts¹⁷⁷ to understand the concept of reality.¹⁷⁸ In many cases, for example, courts employ the fact-expression dichotomy¹⁷⁹ to deal with highly accurate representations of reality, such as maps.¹⁸⁰ Indeed, in *Meshwerks v. Toyota Motor Sales, Inc.*, Judge Gorsuch repeatedly used the phrase “facts *in the world*” to refer to the category of things that were excluded by the fact-expression dichotomy in the context of highly accurate 3-D models.¹⁸¹ The “fact in

¹⁷⁷ See, e.g., Gordon, *supra* note 105, at 93 (titling her article criticizing *Feist*’s doctrine regarding facts as “Reality as Artifact”); Justin Hughes, *Created Facts and the Flawed Ontology of Copyright Law*, 83 NOTRE DAME L. REV. 43, 60 (describing facts as pieces of reality without analyzing whether this equation is valid); cf. Hughes, *supra* note 106, at 342 (equating facts with subject matter, noting that “the problem of copyright protection for photographs is really the same problem as copyright protection for compilations of fact because photographs are, from one perspective, databases”).

¹⁷⁸ There has been extensive scholarly attention given to the judicial treatment of facts in copyright law, particularly in the context of created facts and purported facts. See *infra* text accompanying note 186; see also Alan L. Durham, *Speaking of the World: Fact, Opinion, and the Originality Standard of Copyright*, 33 ARIZ. ST. L.J. 791, 838 (2001) (distinguishing between hard facts and soft facts, then arguing that the distinction is flawed); Gordon, *supra* note 105, at 101 (arguing that *Feist* was analytically flawed because it failed to take into account created facts); Hughes, *Created Facts*, *supra* note 177, at 57-59 (differentiating between facts that are intrinsic to nature, human facts, and created facts); Michelle R. Silverstein, *The Copyrightability of Factual Compilations: An Interpretation of Feist Through Cases of Maps and Numbers*, 1996 ANN. SURV. AM. L. 147, 151 (1996) (proposing a definition of “fact:” “a fact is discovered rather than created, a fact is an important building block of knowledge, and a fact is presented to its audience as factual and true”). This Comment will not repeat the scholarly literature about the proper treatment of facts, as it is a complex and often convoluted issue. Since our mission here is archeological, this Comment will not debate whether *Feist* was correctly decided or not. Rather, this Comment evaluates *Feist*’s conceptual metaphors of reality to flesh out the conceptual model of reality.

¹⁷⁹ The fact-expression dichotomy asserts that facts themselves are not protectable, while expressions of fact may be protectable if they are sufficiently original. See, e.g., *Feist Publ’ns Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 350 (1991) (“Facts, whether alone or as part of a compilation, are not original and therefore may not be copyrighted. A factual compilation is eligible for copyright if it features an original selection or arrangement of facts . . .”).

¹⁸⁰ See, e.g., *Mason v. Montgomery Data, Inc.*, 967 F.2d 135 (5th Cir. 1992); *supra* subsection II.A.3 (discussing the reality-as-subject-matter metaphor).

¹⁸¹ 528 F.3d 1258, 1264 (10th Cir. 2008) (emphasis added). The author can find no reference to this phrase—“facts in the world”—before *Meshwerks*, and Judge Gorsuch does not cite a source for the phrase. It appears, however, in a few scholarly articles. See, e.g., Gordon, *supra* note 105, at 94.

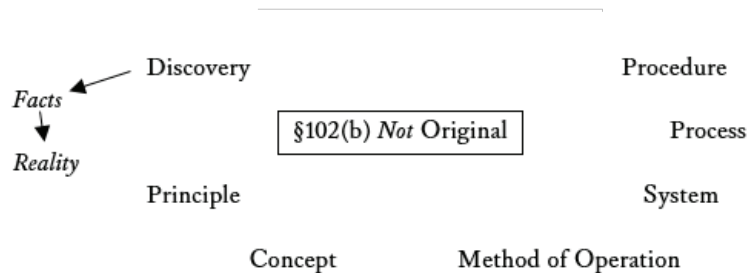
the world” at issue there, however, was the existence of a Toyota car—a created object that is part of externally created reality.¹⁸²

It is black letter law that facts are excluded from copyright protection because they fail the originality standard.¹⁸³ This is because facts, according to the Supreme Court, are discovered rather than created:

No one may claim originality as to facts. This is because *facts do not owe their origin to an act of authorship. The distinction is one between creation and discovery*: The first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence. To borrow from *Burrow-Giles*, one who discovers a fact is not its maker or originator. The discoverer merely finds and records . . . [Facts] may not be copyrighted and are part of the public domain available to every person.¹⁸⁴

Thus, reality enters the § 102(b)¹⁸⁵ realm of unprotectable things through its ultimate characterization as a discovery. If reality-is-facts and facts-are-discoveries, through the transitive property, reality-is-discoveries. Figure 4 shows §102(b) as a radial category incorporating discoveries and reality.

Figure 4: 17 U.S.C. §102(b) As a Radial Category Incorporating the Reality-is-Facts and Facts-are-Discoveries Conceptual Metaphors



¹⁸² *Meshwerks*, 528 F.3d at 1264.

¹⁸³ See *Feist*, 499 U.S. at 344 (“That there can be no valid copyright in facts is universally understood.”).

¹⁸⁴ *Id.* at 347-48 (internal citations omitted) (emphasis added).

¹⁸⁵ 17 U.S.C. § 102(b) (2012) (“In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or *discovery*, regardless of the form in which it is described, explained, illustrated, or embodied in such work.” (emphasis added)).

Many scholars have argued that the Supreme Court was plainly wrong in *Feist* because of its apparent failure to take “created facts” into account.¹⁸⁶ Indeed, on its face *Feist* doesn’t account for the many cases giving protection to “created facts” such as predictions and projections, and denying protection to merely purported facts.¹⁸⁷ In order to flesh out our conceptual model, accepting *Feist*, we must evaluate the nature of facts as it relates to the reality-is-facts metaphor. We will focus here on the more nuanced conceptual metaphor of *Meshwerks*: reality-is-facts-in-the-world.

For most, the reality-is-facts-in-the-world metaphor seems intuitive: reality is factual because we tend to think of it as actually occurring, and is “in the world” because we think that it has an objective existence outside of the human mind.¹⁸⁸ In addition, because it is black letter law that facts are not protected under copyright law, the reality-is-facts-in-the-world metaphor is a useful tool for courts to use in excluding highly accurate representations of reality from protection.¹⁸⁹

It is necessary to pause here to note the distinction between a fact and a representation of a fact because courts often subconsciously conflate the two. A fact is “out there in the world,” while a representation of a fact is a “human

¹⁸⁶ See, e.g., Durham, *supra* note 178, at 795 (“[S]o few facts are entirely free of subjectivity and opinion, one questions the continuing vitality of *Feist*’s prohibition against copyrighting facts.”); Gordon, *supra* note 105, at 106 (“The Court in *Feist* therefore made a significant epistemological and doctrinal error when it insisted that facts were incapable of being created”); Silverstein, *supra* note 178, at 162 (“[T]he court in *Feist* failed to explain clearly what qualifies as an unprotectable fact.”).

¹⁸⁷ See, e.g., *CDN, Inc. v. Kapes*, 197 F.3d 1256, 1261 (9th Cir. 1999) (holding that numerical price estimates were original because they were the product of “judgment [used] to distill and extrapolate from factual data”); *CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports*, 44 F.3d 61, 67 (2d Cir. 1994) (holding that Red Book valuations were original because they were not pre-existing facts that were merely discovered, but rather the product of Red Book editors’ “professional judgment and expertise”); *Arica Inst., Inc. v. Palmer*, 970 F.2d 1067, 1075 (2d Cir. 1992) (using estoppel theory to bar an author from arguing that his work was expressive when he had represented it as “scientifically verifiable ‘facts’ of human nature”); *Nash v. CBS, Inc.*, 899 F.2d 1537, 1541 (7th Cir. 1990) (denying protection to a historical interpretation using the fact-expression dichotomy and reasoning that it makes “all the difference” that the author of a historical interpretation portrayed his work as fact, not fiction).

¹⁸⁸ See, e.g., *BRAINARD*, *supra* note 7, at 203 n.1 (“[‘R]eal’ historically refers to what exists independently of our minds.”).

¹⁸⁹ By characterizing the referent as factual, courts can use the fact-expression dichotomy to deny copyright protection. See generally *supra* subsection II.A.3 (discussing the prototype effect in the originality doctrine, where courts have a preference for inaccurate representations of reality). This use of the fact-expression dichotomy to deny protection in visual works has been especially pronounced in maps. See, e.g., *Mason v. Montgomery Data, Inc.*, 967 F.2d 135, 142 (5th Cir. 1992) (“Historically, most courts have treated maps solely as compilations of facts.”); David B. Wolf, *Is There Any Copyright Protection for Maps After Feist?*, 39 J. COPYRIGHT SOC’Y U.S.A. 224, 239-40 (1992) (arguing that a map should not be treated as solely a compilation of facts because “[a] map does not present objective reality; just as a photograph’s pictorial form is central to its nature, so a map transforms reality into a unique pictorial form central to its nature”).

[attempt] to depict” that fact.¹⁹⁰ In his thoughtful study of the history of facts in copyright law, Justin Hughes notes that “when a distinguished judge or scholar just says *facts* are not protected by copyright law, he or she is engaged in a form of shorthand that is more than just imprecision. It is a subconscious application of copyright’s merger doctrine.”¹⁹¹

The merger doctrine holds that “[w]hen the ‘idea’¹⁹² and its ‘expression’ are . . . inseparable, copying the ‘expression’ will not be barred.”¹⁹³ Similarly, where there are no more than a few ways of expressing a fact, providing copyright protection over the expression would be the practical equivalent of giving protection over the fact itself.¹⁹⁴ Thus, in these cases, courts find that fact and expression have “merged” and deny protection. Such a merger between fact and expression is highly likely because, by their nature, facts can only be represented in only one or a few correct ways.¹⁹⁵ The problem is thus: “the canonical way to specify the fact is the same as the way to specify the expression of the fact, i.e., by expressing it.”¹⁹⁶ A more accurate depiction of the metaphors here is: reality-is-facts-in-the-world and representation-of-reality-is-representation-of-facts-in-the-world. A mouthful, but more accurate.

The *Meshwerks* description of facts as *in the world* is typical of the realism of the U.S. legal system.¹⁹⁷ The concept of facts as coming “from a distance” and from beyond one’s own “self-contained community” gives them

¹⁹⁰ Gordon, *supra* note 105, at 94 (“The [*Feist*] opinion reads as if the Supreme Court distinguished two sorts of facts—Facts₁, that are ‘out there in the world’ and Facts₂, that are human attempts to depict Facts₁,—and denied copyright in lists of Facts₂, on the ground that Facts₁ and Facts₂ were the same.”). The terminology used by the Court in *Feist* to refer to the facts at issue—telephone numbers, towns, and names—supports the line drawn between facts and representations of facts. The Court’s use of modifiers such as “raw,” “bare,” “underlying,” and “pre-existing” suggests that the Court is referring to facts themselves rather than representations of the facts. *Feist Publ’ns Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 348, 350, 361 (1991).

¹⁹¹ Hughes, *Created Facts*, *supra* note 177, at 56.

¹⁹² The merger doctrine applies equally to the fact–expression dichotomy. See, e.g., Robert C. Denicola, *Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 COLUM. L. REV. 516, 526 n.52 (1981) (“For the purposes of copyright infringement, data and ideas are treated as equivalents.”).

¹⁹³ *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th Cir. 1971).

¹⁹⁴ See, e.g., *Feist*, 499 U.S. at 350 (“This Court has long recognized that the fact–expression dichotomy limits severely the scope of protection in fact-based works.”).

¹⁹⁵ Hughes, *Created Facts* *supra* note 177, at 56.

¹⁹⁶ *Id.* at 57. Some argue that there is no independent existence of the fact apart from its expression. See Litman, *supra* note 76, at 996–97 (arguing that facts “do not exist independently of the lenses through which they are viewed”); cf. Durham, *supra* note 178, at 839 (“That is not to say that there is no world ‘out there,’ rather that the world does not ‘split itself up, on its own initiative, into sentence-shaped chunks called ‘facts.’” (internal citations omitted))).

¹⁹⁷ See Hughes, *Created Facts*, *supra* note 177, at 49 (“This observable fact that is ‘out there’ became foundational for empiricism, for the kind of public policy debates that took hold in the West in the eighteenth century, and, arguably, for democratic self-governance itself.”).

legitimacy as tools of debate and discovery.¹⁹⁸ In addition, the view of facts as “things people can see and of which they can form clear, mental pictures” is at the root of logical positivism and scientific realism.¹⁹⁹ Thus, through using the reality-is-facts-in-the-world metaphor, courts are implicitly taking what has been termed the third-person account of reality,²⁰⁰ one “anchored in what remains the same for everyone irrespective of first-person experience.”²⁰¹

Recall, for example, the description in *Kelly v. Morris* of reality as “common objects of information”²⁰² and in *Blunt v. Patten* of reality as “open to the examination of all.”²⁰³ These descriptions support a third-person understanding of reality as consisting of things that remain the same for everyone—it is a collective, rather than an individual experience. We identified this earlier through the reality-is-commons metaphor. Also recall Holmes’s description in *Bleistein* of reality as “actual” and consisting of “visible things.”²⁰⁴ These descriptors are clear indicators of a third-person view of reality—one that sees reality as “mind-independent” and objective.²⁰⁵ And that courts understand reality from a third-person perspective is entirely unsurprising, as historically the third-person account is what most people intuitively think of as reality.²⁰⁶ Thus, the reality-is-facts-in-the-world metaphor points us towards a definition of facts as existing “out there” in the world, just like reality exists “out there” in the world.²⁰⁷

While it is clear that the reality-is-facts-in-the-world metaphor accommodates our intuitive understanding of reality as objective and actual, does it also accommodate our common understanding of reality

¹⁹⁸ *Id.* at 50–51.

¹⁹⁹ *Id.* at 51.

²⁰⁰ *Id.* at 55 (“It seems pretty clear that the legal system adheres to the correspondence theory: the facts are out there, quite separate from subjective viewpoints.”).

²⁰¹ BRAINARD, *supra* note 7, at 22; see also Jan Westerhoff, *What is Reality?*, NEW SCIENTIST (Sept. 29, 2012), <http://landing.newscientist.com/departments-for-education-feature-2> [https://perma.cc/T8WP-5W7B] (proposing that we equate reality “with a world without us, a world untouched by human desires and intentions”).

²⁰² *Kelly v. Morris* (1866) 1 LR Eq. 696 at 701 (Eng.).

²⁰³ *Blunt v. Patten*, 3 F. Cas. 763, 764–65 (S.D.N.Y. 1828) (No. 1580).

²⁰⁴ *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 249 (1903).

²⁰⁵ BRAINARD, *supra* note 7, at 18.

²⁰⁶ *Supra* note 188 and accompanying text.

²⁰⁷ There is however an alternative understanding of the nature of facts as human constructions that are formed by our subjective perceptions and societal conditions. Hughes, *Created Facts*, *supra* note 177, at 52–53. This view of facts corresponds with the first-person account of reality. Most powerfully articulated by French philosopher René Descartes, this theory argues that reality can only be understood from the subjective viewpoint of the individual: “[T]he first-person view gives an object as it is for you or me personally, as we ourselves experience it or think of it.” BRAINARD, *supra* note 7, at 15. It consists of our “personal perceptions, feelings, values, consciousness, will, sense of self, and the like.” *Id.* at 17.

as including created things?²⁰⁸ In *Meshwerks*, Judge Gorsuch understood a created thing—a Toyota car—to be out there “in the world” as part of his reality.²⁰⁹ In addition, in photography cases, the “reality of [the] subject matter”²¹⁰ encompassed everything that the author herself did not create: things with no human author (public domain reality) and things with a different human author (externally created reality).²¹¹ Finally, an understanding of reality-as-commons—that is, reality as “common objects of information”²¹² and “open to the examination of all”²¹³—is broad enough to encompass created things.²¹⁴ The view of reality as both noncreated and created is perfectly consistent with the third-person view of reality as existing irrespective of first-person experience. Reality would exclude entirely subjective experiences such as delusions, but include things that are created and common to all (such as a Toyota car or the Mona Lisa).²¹⁵

Feist, however, held that discoveries (and by extension, facts and reality) are *not created*.²¹⁶ This Comment argues that the description of facts in *Feist* as discovered rather than created can be reconciled with the reality-is-facts-in-the-world metaphor—with reality defined as including both created and noncreated things that are common to all—as long as we are conscious about the role of authorship and perspective in defining a “discovery.” Robert C.

²⁰⁸ Indeed, Wendy Gordon notes that “[w]hen an artist sends an artifact into the world, it affects other people and becomes part of their reality.” Gordon, *supra* note 105, at 99.

²⁰⁹ *Meshwerks, Inc. v. Toyota Motor Sales U.S.A., Inc.*, 528 F.3d 1258, 1264 (10th Cir. 2008).

²¹⁰ *Franklin Mint Corp. v. Nat’l Wildlife Art Exch.*, 575 F.2d 62, 65 (3d Cir. 1978).

²¹¹ The use of other authors’ works as subject matter is particularly pronounced in so-called “appropriation art,” described as “the more or less direct taking over into a work of art a real object or even an existing work of art.” *Cariou v. Prince*, 714 F.3d 694, 699 (2d Cir. 2013) (internal quotation marks omitted). In *Cariou*, the court evaluated whether using another author’s photographs “in whole or substantial part” in a series of paintings and collages was fair use. *Id.* at 710. For other examples of cases addressing appropriation art see, *Blanch v. Koons*, 467 F.3d 244 (2d Cir. 2006), which addressed whether using photographs from fashion magazines and advertisements to create a collage was fair use, and *Graham v. Prince*, 265 F. Supp. 3d 366 (S.D.N.Y. 2017), in which the court evaluated whether merely framing another author’s photograph as an Instagram post was sufficiently transformative to be fair use.

²¹² *Kelly v. Morris* (1866) 1 LR Eq. 696 at 701 (Eng.).

²¹³ *Blunt v. Patten*, 3 F. Cas. 763, 764-65 (S.D.N.Y. 1828) (No. 1580).

²¹⁴ For example, the Mona Lisa is created but it seems to exist for everyone irrespective of their own first-person experience.

²¹⁵ Interestingly, Michelle Silverstein defines reality as “anything that exists or has existed in a state of nature or anything for which there is or has been one objective answer or truth.” Silverstein, *supra* note 178, at 176. Silverstein defined reality for the purposes of analyzing facts, and thus her definition is suited for that particular purpose. *Id.* at 176-77. However, we have established that the first part of her definition is too limited because reality includes things that are not in a state of nature. And the second part of her definition engages metaphysical issues that we have decided are beyond the scope of this Comment.

²¹⁶ *Feist Publ’ns Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 347-48 (1991).

Denicola, in his article quoted by the Supreme Court in *Feist* for the proposition that facts are discovered, notes that the view of facts as discoveries “does not depend upon adherence to an objective view of reality. We are equally *unaccustomed to speaking of people as the ‘authors’ of their individual perceptions*.”²¹⁷ A person, quite simply, is not the author of the reality she perceives, or in other words, the reality she discovers but does not create. Under this view, discoveries may be defined subjectively as consisting of everything that is not authored by the particular creator at hand; labeling something as a discovery simply means that “the existence of the information is not dependent on the efforts of *its discoverer*.”²¹⁸

Thus, the reality-is-facts-in-the-world metaphor holds true if we understand “discovery” from the subjective perspective of the *next creator*. And it makes good sense to do so, considering the central purpose of the fact/expression dichotomy: the need to balance protection with progress. Indeed, it is a principle internal to the structure of copyright law that the level of copyright protection must not hamper progress (a principle that this Comment will discuss further in Part IV). In order to achieve this balance, the perspective of the next creator is the only perspective we care about—it is the next creator who must draw on a reservoir of past creativity in order to generate future creative works. For the next creator, all of public domain reality and externally created reality are discoveries because their existence does not depend on her own efforts.

Feist itself supports this broader notion of a discovery. Although *Feist* at times seems to suggest that a discovery must be entirely novel,²¹⁹ in application, it utilizes the broader understanding of a discovery as something that merely does not owe its origin to the relevant creator.²²⁰ Surely, the names, towns, and telephone numbers at issue in *Feist* were known by *someone* before Rural’s efforts to memorialize them in a directory. This information, however, was new to and not authored by the

²¹⁷ Robert C. Denicola, *Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 COLUM. L. REV. 516, 525 n.49 (1981) (emphasis added).

²¹⁸ *Id.* at 525 (emphasis added); see also *Feist*, 499 U.S. at 346 (defining author as “he to whom anything owes its origin; originator; maker” (quoting *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884))).

²¹⁹ In its initial analysis of the concept of discovery, the Court suggests that novelty may be relevant: “The first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence.” *Feist*, 499 U.S. at 347.

²²⁰ The Court later seems to concede that novelty is irrelevant to determining whether something is a discovery for purposes of copyright law. Instead, the Court asks simply whether the information owed its origin to the author at issue. See *id.* at 361 (“Rural may have been the first to discover and report the names, towns, and telephone numbers of its subscribers, but this data does not ‘ow[e] its origin’ to Rural . . . ; [the facts] existed before Rural reported them and would have continued to exist if Rural had never published a telephone directory.”).

relevant creator—Rural. Thus, according to the Supreme Court, the information was discovered by Rural. It simply does not follow from *Feist*'s analysis that discoveries must be *entirely* novel or not created by any human author.²²¹ In order to qualify as a discovery, something merely must be novel to and not created by the *next creator*. Indeed, if the definition of discoveries was limited to entirely novel finds—things that had never been encountered by another human being—the scope of the fact-expression dichotomy post-*Feist* would be absurdly narrow.²²²

Thus, an appreciation for authorship and perspective is critical in defining a discovery, and by extension, reality. Working through some illustrative examples may help us understand how the perspective of the next creator is operationalized in our ontology of reality. For example, Albert Einstein created the factual expression $E = mc^2$ to describe a fact of public domain reality (relativity). The expression $E = mc^2$ was not a part of Einstein's reality when he created it; rather, it was new expression. However, his expression of the fact would likely be considered to merge with the fact itself such that copyright law would deny protection. On the other hand, the expression $E = mc^2$ is part of the bundle of things that compose the next creator's reality—its existence does not depend on her efforts, and thus it is a discovery. The next creator could not obtain copyright protection over the expression $E = mc^2$ because it is a part of her externally created reality.

Consider a more artistic example: Jeff Koons's *Balloon Dog*.²²³ To the next creator, this work is a discovery. She did not create it, and the work exists

²²¹ Indeed, *Feist* even seems to suggest that facts do not need to be objectively true or verifiable. The Court in *Feist* did not hesitate in including four fictitious listings—"copyright traps" hidden in the defendant's directory—to be in the realm of unprotectable "facts." *Id.* at 344; see also *supra* note 187 and accompanying text (noting how courts have used an estoppel rationale to prevent individuals representing information as factual from later claiming it is fictional and thus expressive).

²²² Cf. Durham, *supra* note 178, at 838 ("Indeed, one wonders whether there are enough hard facts to preserve the principle of *Feist* that facts in general are uncopyrightable . . .").

²²³ This work was installed (and then vandalized) in augmented reality. Andrew R. Chow, *Snapchat and Jeff Koons Collaborate on Augmented Reality Art Project*, N.Y. TIMES (Oct. 3, 2017), <https://www.nytimes.com/2017/10/03/arts/design/snapchat-and-jeff-koons-collaborate-on-augmented-reality-art-project.html>; Anna Codrea-Rado, *Virtual Vandalism: Jeff Koons's 'Balloon Dog' is Graffiti-Bombed*, N.Y. TIMES (Oct. 10, 2017), <https://www.nytimes.com/2017/10/10/arts/design/augmented-reality-jeff-koons.html>. The artist who graffitied the work, Sebastian Errazuriz, did so "as part of a 'stance against an imminent AR corporate invasion.'" Jason Sayer, *Who's in Charge of the Augmented City?*, CITY LAB, (March 12, 2018), <https://www.citylab.com/design/2018/03/whos-in-charge-of-the-augmented-city/554324> [<https://perma.cc/SU7Y-FSMF>]. Indeed, augmented reality is a blossoming medium for appropriation art. See, e.g., Mack DeGeurin, *Internet Artists Invaded the MoMA With a Guerrilla Augmented Reality Exhibit*, MOTHERBOARD (March 5, 2018), https://motherboard.vice.com/en_us/article/8xd3mg/moma-augmented-reality-exhibit-jackson-pollock-were-from-the-internet [<https://perma.cc/Y7JC-6PBP>] (describing how a collective of eight internet artists transformed the Jackson Pollock room in the MoMA through overlaying their own works on top of the Jackson Pollock paintings with augmented reality technology).

independent of her own efforts. Thus, the work becomes a part of the next creator's externally created reality. Note that considering *Balloon Dog* to be a fact of the next creator's reality does not diminish copyright protection for Koons under this ontology of reality—when he created *Balloon Dog*, it was not a fact *of his world*. Rather, it was new expression and thus qualified for copyright protection.²²⁴ Importantly, the fact/expression dichotomy only excludes copyright protection for things that were facts *from the perspective of the creator seeking protection* (here, the next creator).

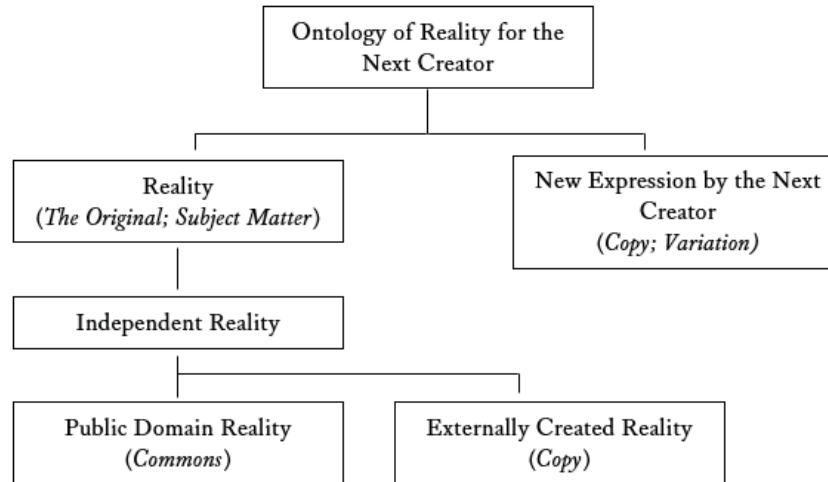
Thus, the reality-is-facts-in-the-world and facts-are-discoveries conceptual metaphors reveal that reality itself is not authored, and thus not original, because it does not owe its origin to the next creator. Instead, reality functions as a factual referent for the next creator's new expression. Reality consists of everything that is common to all—public domain reality and externally created reality—but *excludes* those things that the next creator created but did not discover (new expression).

III. THE CONCEPTUAL MODEL

This Section summarizes and illustrates the ontology we have constructed through the intertwining metaphors of reality, with Figure 5 showing a visual representation of the conceptual model. Critically, the reality metaphors reveal that the ontology of reality in copyright law hinges on the perspective of the next creator. Thus, our ontology of reality is constructed from the perspective of the next creator.

²²⁴ See *infra* Part IV (noting that a merger analysis where a formerly protected expression could lose protection by subsequent creators seeing it as a fact is conspicuously absent from the current ontology of reality); see also Gordon, *supra* note 105, at 97 (arguing that created works should lose protection as soon as they are referenced as facts of other creators' realities).

Figure 5: Conceptual Model of Reality from the Perspective of the Next Creator



The first branch of our model separates reality from the new expression of the next creator. The reality-is-original, reality-is-subject-matter, and representation-is-copy conceptual metaphors reveal that the distinction between the referent and the author's own work is a basic, yet critical, line to draw. The core function of reality in copyright law is *as a referent*, and thus it must be distinguished from the next creator's new expression that *uses* reality as a referent. Critically, the next creator's new expression *is not* a component of reality for purposes of copyright law because it is authored and not discovered by the next creator. Further, the originality-is-variation metaphor teaches that this new expression should vary from its referent in some way in order to be deemed original, at least in the case when externally created reality is the referent.

The reality-is-facts and facts-are-discoveries conceptual metaphors teach that reality, as a referent for the next creator, must consist solely of "independent reality"—those things that the next creator did not herself create. The reality-is-commons metaphor reveals that public domain reality—that part of reality with no human author—is an essential component of independent reality and unique in that it may be freely copied by future creators. The reality-is-subject-matter conceptual metaphor tells us that independent reality also includes things that have a human author other than the next creator: externally created reality. Importantly, externally created reality consists of copies—works that may be protected by copyright law. Thus, an author must be cautious of the potential for

infringement and lack of independent creation when she uses externally created reality as a referent.

This Section illustrates our conceptual model using three hyper-simplified hypothetical illustrations. Imagine a world with only three people: Creator₁, Creator₂, and Creator₃. Because the application of our conceptual model depends heavily on the nature of the creator's referent—i.e. whether it primarily consists of public domain reality or externally created reality—we will examine how the conceptual model operates for creators living in three differently composed realities: an independent reality consisting entirely of public domain reality (subsection A); an independent reality consisting partially of public domain reality and partially of externally created reality (subsection B); and finally, an independent reality consisting entirely of externally created reality (subsection C).²²⁵ These illustrations allow us to glimpse the potential implications of the current ontology of reality for new reality technologies.

A. *A State of Nature*

Our first creator lives in a state of nature. There have been no other creators, and thus Creator₁'s reality consists only of public domain reality. Creator₁ may copy the public domain reality with no fear of infringement because it has no human author. Thus, she has a great deal of freedom to use reality as a referent for her creative works. And her works—whether in the first, second, or third order of simulation—will likely be considered original if there is a minimal spark of creativity. Thus, as long as she is the author and her works are memorialized in a tangible medium, her work will be protectable under copyright law.²²⁶

B. *The Modern World*

Next, imagine a world with a mix of public domain reality and externally created reality.²²⁷ It turns out that Creator₁ had a prolific career designing urban landscapes, and now about fifty percent of Creator₂'s reality consists of copyrighted works authored by Creator₁. Later in life, Creator₁'s particular specialty was designing billboards for advertisers.

²²⁵ These three realities track Baudrillard's three orders of simulation. *See supra* subsection II.A.2.

²²⁶ If her works are highly accurate copies of independent reality, this protection will be "thin," however. *See supra* note 130 (introducing the concept of "thin" or "porous" protection where the subject matter is independent reality).

²²⁷ *See* Gordon, *supra* note 105, at 101 ("In a civilized nation, much of reality is artifact. Too broad a set of intellectual property rights can give one set of persons control over how that reality is viewed, perceived, interpreted—control over what the world *means*.").

Creator₂ also has a creative spark, however, and seeks to diversify the art scene. As she sets out to create, Creator₂ may still freely use the fifty percent of public domain reality that remains as a referent for her work—far less material to reference than was available to Creator₁. In addition, fifty percent of Creator₂'s reality is composed of Creator₁'s works. Having grown up in a city full of Creator₁'s splashy billboards, Creator₂ would like to use elements of Creator₁'s designs in her own work in order to comment on Creator₁ "selling out" to advertisers.²²⁸ She is worried, however, about the possibility of infringing Creator₁'s copyright rights in the billboards. So, she sticks to the ever-dwindling source material of public domain reality to use as a referent for her creativity. Creator₂ will likely be able to obtain copyright protection over her works, but her creativity is limited due to fifty percent of her reality being an unavailable referent.²²⁹

Change the scenario slightly. Creator₂'s reality now includes fifty percent public domain reality and fifty percent externally created reality because Creator₂ is wearing augmented reality contact lenses. Her vision is thus filled with virtual objects designed by Creator₁. In the nature of a second order of simulation, the simulated objects in Creator₂'s vision are so realistic that she has a hard time distinguishing between the two types of reality. Seeing a flower bloom in her garden one day, she sets out to make an accurate sculpture of the flower. It turns out that the flower was the copyrighted design of Creator₁ and that she may be infringing her copyright rights. Because the consequences of copying public domain reality and externally created reality are drastically different, and Creator₂ has no good way of distinguishing between noncreated and created objects, she may be discouraged from creating works based on reality as a referent *in general*. Importantly, this illustration reveals that where externally created reality consists of second order simulations, a creator may *not only* be deterred from using externally created reality as a referent, but may also be deterred from using public domain reality as a referent due to her inability to distinguish between the two.

²²⁸ See *supra* note 211 (discussing appropriation art).

²²⁹ A defense of fair use is always available to creators who seek to comment on other authors' works. See, e.g., *Campbell v. Acuff-Rose Music*, 510 U.S. 569, 579 (1994) (holding that parody, like other forms of social commentary and criticism, may be fair use). However, the threat of potential litigation may deter many creators with a valid fair use defense. Indeed, exactly what will be considered sufficiently "transformative" for fair use is extremely difficult to predict *ex ante*. See Brian Sites, *Fair Use and the New Transformative*, 39 COLUM. J.L. & ARTS 513, 515 (2016) (noting that the unpredictability of fair use has deterred creativity: "[U]ncertainty has a price. A 2014 report by the College Art Association found that a significant portion of the art community, broadly defined, has avoided or abandoned works because of copyright concerns . . ."). Here, we assume that Creator₂ will be sufficiently deterred by the potential threat of litigation from Creator₁.

C. Hyperreality

Despite fears of infringement, Creator₂ has been very busy. Feeling that a more ecofriendly way to create was through virtual mediums, she entirely recreated the fifty percent of public domain reality remaining in the modern world in virtual reality. Her world is purely virtual; none of public domain reality remains visible through her virtual reality contact lenses.

Due to her beautiful graphic design and the exciting possibilities offered by a virtual life, many people have chosen to live their lives in Creator₂'s virtual world through wearing virtual reality contact lenses. Creator₃ is one of those individuals, and is inspired to comment on and add to Creator₂'s virtual environment. However, all of the reality that is available for Creator₃ to use as a referent was authored by Creator₂. How can Creator₃ comment on her own reality without infringing Creator₂'s copyright rights?

Sure, Creator₃ could attempt to make her work "transformative," thus hoping that she would have a defense of fair use if sued by Creator₂ for infringement.²³⁰ She could try to build something entirely from her own imagination, but very little creativity can exist without building *somehow* on prior creativity, and Creator₃ feels that an accurate depiction of her virtual environment is necessary to give her work meaning.²³¹ Creator₃ will either be barred from accurately depicting her reality-as-referent, or risk facing a lawsuit.

Here, Creator₃ is embroiled in a problem of the anticommons.²³² In hyperreality, too many monopoly rights exist; as a result, earlier rights holders may prevent new creators from making productive uses of creative resources. This Comment has thus far highlighted the central role of reality-as-referent, i.e., reality as a creative resource for use by the next creator. These illustrations reveal that hyperreality in particular threatens to destabilize this central role of reality-as-referent.

IV. IMPLICATIONS FOR NEW REALITY TECHNOLOGIES

What is missing in this ontology of reality that could allow courts to effectively cope with new reality technologies? First, there is absent a robust merger doctrine in which created parts of our reality, which may start out as protectable under copyright law, lose their protection as they become large

²³⁰ *Campbell*, 510 U.S. at 579 ("Although . . . transformative use is not absolutely necessary for a finding of fair use, the goal of copyright . . . is generally furthered by the creation of transformative works." (internal citations omitted)).

²³¹ See *infra* Part IV (discussing the derivative nature of creativity).

²³² See *Heller*, *supra* note 75, at 624 ("In an anticommons . . . multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. When there are too many owners holding rights of exclusion, the resource is prone to underuse—a tragedy of the anticommons." (emphasis added)).

parts of our reality. A more robust merger doctrine may allow courts to maintain the core function of reality-as-referent.²³³

In addition, the metaphor of reality-is-commons is lurking in the background of our ontology of reality, but it does not play any dominant or active role in the conceptual model. We discussed it primarily alongside the reality-is-original metaphor and the proposition that public domain reality is a freely accessible referent for copying. However, amongst all the features of the currently existing ontology of reality, the reality-is-commons metaphor may become the most important in the context of new reality technologies. To understand the power of the reality-is-commons metaphor, we must explore further the place of the public domain in copyright law.

The existence of a public domain is a bedrock principle in copyright law. Where there is a public domain, there is a collection of works that are given no protection and thus may be copied or appropriated without legal remedy. The principle that some works must remain unprotected is essential to fulfill the constitutional mandate that copyright law must “promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”²³⁴

In copyright law, the existence of a public domain has at least three constitutional hooks. First, the provision that protection must be for “limited times” commands that an author may not obtain a perpetual monopoly in her work. Some works, then, will fall into the public domain simply because the term of protection has expired. Second, the constitutional terms “authors” and “writings” have been interpreted to require a human author, a minimal amount of creativity, and fixation in a tangible medium of expression as prerequisites for obtaining copyright protection.²³⁵ These two constitutional hooks invite a negative definition of the public domain as everything *not* protected by copyright, either because the term of the legal protection has expired or copyright law could never extend protection to the work because

²³³ See, e.g., Gordon, *supra* note 105, at 97 (arguing that created facts should lose protection when they become part of our reality); *supra* note 23 (noting that *Feist* may suggest that once-original works may lose their protection over time by becoming “age-old,” traditional, or commonplace). Such a doctrine may not be judicially administrable, however. How would courts decide which parts of our externally created reality are sufficiently commonplace to lose protection?

²³⁴ U.S. CONST. art. I, § 8, cl. 8.

²³⁵ This constitutional language is the source of the originality standard, the fixation requirement, and the fact-expression dichotomy. See, e.g., *Feist Publ'ns Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 346-47 (1991) (discussing the constitutional roots of the originality standard and fact-expression dichotomy); *Kelley v. Chicago Park Dist.*, 635 F.3d 290, 303 (7th Cir. 2011) (noting that the word “writings” is the constitutional hook for the fixation requirement).

it does not satisfy a requirement of protectability. Because of its simplicity, the predominant trend is to define the public domain negatively.²³⁶

There is, however, a third constitutional hook: the existence of a public domain is essential to fulfilling the constitutional mandate to “promote progress.” To justify its grant of a limited monopoly right in creative works, copyright law must incentivize the creation of new works. The resulting expansion of the corpus of collective knowledge “promote[s] progress.” This justification is referred to as the “incentives-access tradeoff.” Simplistically, it runs something like this: in exchange for a limited monopoly over an author’s creative work—which provides her with a financial reward that will (theoretically) incentivize her to continue producing new creative works—the author will *eventually* provide the public with free access to her works. Under current copyright law, the public receives this free access seventy years after the death of the author (with some exceptions, of course).²³⁷ The incentives-access justification is the predominant justification for copyright protection in the United States.²³⁸ But what incentives or resources do authors need in order to produce creative works? Money, perhaps.²³⁹ But authors also need inspiration, and inspiration is often derived from other creative works.²⁴⁰

When grappling with the amount of protection to afford to a historical exposé, Judge Frank Easterbrook plainly acknowledged the derivative nature of creativity and the inefficiency that may result from granting works too much protection:

²³⁶ It is always easier to point to what something is not than define what it is. See THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION §1.01(2) (3d ed. 1996) (“Public domain is the rule: intellectual property is the exception.”); *Public Domain*, BLACK’S LAW DICTIONARY (10th ed. 2014) (“The universe of inventions and creative works that are not protected by intellectual-property rights and are therefore available for anyone to use without charge.”).

²³⁷ 17 U.S.C. § 302 (2012).

²³⁸ See *infra* note 239 (questioning whether this incentives logic really works) and note 243 (providing a more sophisticated economic analysis of the tradeoff between access and incentives).

²³⁹ But see Diane Lennheer Zimmerman, *Copyright as Incentives: Did We Just Imagine That?*, 12 THEORETICAL INQUIRIES L. 29, 32 (2011) (“Because an almost linear relationship between the opportunity to reap profits and the incentive to produce is so commonly presumed as a theoretical matter . . . there has been relatively little critical evaluation of the empirical legitimacy of the theoretical assumptions about copyright as an incentive.”).

²⁴⁰ Many artists plainly acknowledge that their creativity is necessarily and unabashedly derivative. See, e.g., William Burroughs, *Les Voleurs*, in THE ADDING MACHINE (1985) (“Out of the closets and into the museums, libraries, architectural monuments, concert halls, bookstores, recording studios and film studios of the world. Everything belongs to the inspired and dedicated thief . . . *A bas l’originalité*, the sterile and assertive ego that imprisons us as it creates.”); DALI BY DALI 137 (Eleanor R. Morse trans. 1970) (“Those who do not want to imitate anything, produce nothing.”); Letter from Mark Twain to Helen Keller (March 17, 1903), in 2 MARK TWAIN’S LETTERS 730, 731 (Albert Bigelow Paine ed. 1917) (“As if there was much of anything in any human utterance, oral or written, *except* plagiarism! The kernel, the soul—let us go further and say the substance, the bulk, the actual and valuable material of *all* human utterances—is plagiarism.”).

Intellectual (and artistic) progress is possible only if each author builds on the work of others. No one invents even a tiny fraction of the ideas that make up our cultural heritage. Once a work has been written and published, any rule requiring people to compensate the author slows progress in literature and art, making useful expressions “too expensive,” forcing authors to reinvent the wheel, and so on. Every work uses scraps of thought from thousands of predecessors, far too many to compensate even if the legal system were frictionless, which it isn’t. Because any new work depends on others even if unconsciously, broad protection of intellectual property also creates a distinct possibility that the cost of litigation—old authors trying to get a “piece of the action” from current successes—will prevent or penalize the production of new works, even though the claims be rebuffed.²⁴¹

The gist of the passage: all authors need to draw on past creativity in order to generate future creativity.²⁴² Without a public domain, Judge Easterbrook suggests, there would be a dynamic inefficiency as new creativity is blocked by the monopoly rights of prior creators.²⁴³ We saw this issue emerge clearly in the ontologies of reality for Creator₂ and Creator₃.

Thus, the requirement that copyright law promote creativity, paired with the essentially derivative nature of creativity, points us toward an alternative, positive definition of the public domain. The public domain may be understood as a reservoir of resources generally accessible by the public for use without restriction.²⁴⁴ Understood as such, the public domain is an

²⁴¹ Nash v. CBS, Inc., 899 F.2d 1537, 1540–41 (7th Cir. 1990).

²⁴² *Id.* at 1541 (“[E]very author is simultaneously a creator in part and a borrower in part.”); see also David Lange, *Reimagining the Public Domain*, 66 L. & CONTEMPORARY PROBLEMS 463, 472 (2003) (“Creativity and appropriation are inseparable, as inseparable as creativity and memory, and in my judgment they should remain so.”).

²⁴³ Glynn S. Lunney, Jr. has provided a sophisticated economic analysis of the potential inefficiencies in the incentives-access tradeoff, alluded to by Judge Easterbrook in the above passage:

As copyright protection broadens, the incentive to produce any given work, measured by the expected return on the work, increases, but both the cost of creating new works and the deadweight loss associated with existing works also increase. At some point, given . . . an increasing marginal cost associated with further lost access, further expanding copyright’s protection will increase the cost of reusing an element to a level that ‘unduly’ discourages the creation of future works, or it will raise the price of access to an existing work to a level that unduly limits the work’s dissemination. At that point, the need for access would outweigh the need for incentives, and the incentives-access paradigm would demand a limit to copyright’s protection.

Glynn S. Lunney, Jr., *Reexamining Copyright’s Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 498 (1996).

²⁴⁴ See, e.g., Lange, *supra* note 242, at 476 (“I am interested in the public domain as an affirmative source of entitlements capable of deployment, as, when and where required, against the encroachments upon the creative imagination threatened by intellectual property.”); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 968 (1990) (“The public domain should be understood not

important resource for derivative creativity. Referring to the public domain as an “intellectual commons” illuminates this positive function.²⁴⁵

Our current conceptual model allows for the extension of copyright protection into the third order of simulation—an author like Creator₃ may obtain protection for her entire virtual world if she is the author and her work is minimally creative. The reality-is-commons metaphor has no power to prevent this. Courts must consider whether this is a desirable outcome in the age of new reality technologies, and if not, how copyright law might preserve the central role of reality as a referent for future creativity. Earlier, this Comment noted the potential for a more robust merger doctrine, where works might lose protection post hoc when they become commonplace parts of our communal independent reality.²⁴⁶

On the other hand, courts may seek to stem the disappearance of reality-as-commons by limiting protection for works in the second and third orders of simulation ex ante. Such an approach may remedy the potential dampening of an author’s incentives to create where the consequences of using reality-as-referent are not clear (seen in the ontology of reality for Creator₂). At the very least, the dynamic inefficiency would be lessened where the particular nature of reality-as-referent is minimally clear to the next creator. This would no doubt entail denying protection on the grounds of public policy to many works that are otherwise protectable, and thus would be a measure for Congress rather than the courts.²⁴⁷

as the realm of material that is undeserving of protection, but as a device that permits the rest of the system to work by leaving the raw material of authorship available for authors to use.”).

²⁴⁵ See, e.g., Samuel Oddi, *The Tragicomedy of the Public Domain in Intellectual Property Law*, 25 HASTINGS COMM. & ENT. L.J. 1, 8 n.13 (2002) (surveying definitions of the public domain).

²⁴⁶ See *supra* note 233 (questioning whether such a regime would be judicially administrable).

²⁴⁷ Thinkers have already begun to imagine how new reality technologies may be regulated in a future where they are commonplace parts of our everyday reality. Architect Fredrick Hellberg, for example, has imagined the possibilities of augmented reality in architecture: “Local governments will need regulation for [AR] in the future because it will become intrusive We need to create some sort of order. That will be the last phase of this digital revolution.” Sayer, *supra* note 223. Jason Sayer argues that Privately Owned Augmented Public Spaces (POAPS) may become common, analogizing them to privately owned public space. *Id.* The general issue of the anticommons that would emerge from such environments has already been flagged by those envisioning an augmented reality future. In his *Code of Ethics on Human Augmentation*, although mostly concerned with surveillance, privacy, and information access, Steve Mann addressed this concern about maintaining a “commons” for human expression. Steve Mann, *Code of Ethics on Human Augmentation*, in PEDDIE, *supra* note 12, at 16. One of the tenets of Mann’s code is that humans “have the power to create their own ‘digital identities’ and express themselves (e.g., to document their own lives, or to defend against false accusations), using data about them, whether in the real or virtual world.” *Id.* Similarly, in 2016 John Rousseau proposed three “laws of mixed reality,” one of which evidences this concern with the tragedy of the anticommons: “Mixed reality must respect boundaries between commerce and data.” *Id.* at 18.

The purpose of this Comment, however, is not to argue for adjustment to the conceptual model.²⁴⁸ This Comment merely flags these potential approaches in order to indicate that adjustment—inclusive of potentially major adjustment—may be required for our ontology of reality to balance the needs of progress and protection for expressive works in new reality technologies.

CONCLUSION

Reality in copyright law is not viewpoint neutral. Rather, it must be understood as a referent from the perspective of the *next creator*. In general, reality itself is not protected because it is not authored by the next creator; however, reality may be authored by other creators.

As a resource for derivative creativity that is common to all, reality consists of things which have no human author (public domain reality) or were authored by other creators (externally created reality). While public domain reality may be freely copied, components of externally created reality may be protected by copyright law. Thus, the next creator must beware when using externally created reality as a referent for her own new expression. Such is the current ontology of copyright and reality.

In a world where creativity is derivative, this ontology of reality highlights the importance of striking the balance between the needs of progress and protection for new reality technologies. Simulation—a relative newcomer to this ontology—will require further examination. Copyright protection for simulations—particularly simulations in the second and third order, where the simulation becomes indistinguishable from its referent—may deter the use of reality *in general* as a referent. Where her externally created reality includes simulations, the next creator may no longer be able to distinguish between public domain reality and externally created reality. Thus, she will be unable to predict how her use of reality-as-referent will affect her eligibility for copyright protection and the potential for infringement.

In this way, a reality brimming with copyrighted works—such as is promised by “new reality” technologies—may lead to a problem of the anti-commons, where prior rights-holders prevent the next creator from making productive use of reality as a resource for derivative creativity. On the other hand, we should be wary of allowing the prototype effect—where highly accurate works are understood to be less creative than inaccurate works—from extending so far as to deny protection for an accurate representation of *any* referent, without regard to its nature. Indeed, we must remember that not all components of reality are treated equally.

²⁴⁸ See *supra* Section II.A (noting that this Comment will not engage in the last step of Koepsell's commonsense ontology—adjustment).

However, this ontology is only a start. As copyright law tackles a world increasingly overlaid with copyrightable works, the conceptual content of reality must not be left unexamined or unadjusted.